Kan. a

December 28, 1973

Mr. John R. Schlup 1919 Hunting Manhattan, Kansas 66502

Dear John:

Many thanks for your letter of December 24 which came yesterday. I was unprepared then to answer your questions and suggestions concerning Sigma Tau; but today I am prepared. The Executive Council of Tau Beta Pi has just declared the merger of Sigma Tau and Tau Beta Pi ratified by our chapters, so now we can go ahead on January 27 and "merge" your new Tau Beta Pi chapter with the existing Sigma Tau chapter at Kansas State University.

Now, we know what to do with those students of Tau Beta Gamma who are also members of Sigma Tau. Their Tau Beta Pi initiation fees will be paid by the Sigma Tau national headquarters and you, should not collect any national fee from them, although you may want to collect your own local fee to cover your costs of their banquet, etc. I will bill the national headquarters of Sigma Tau for their national Tau Beta Pi fees. But you must identify Sigma Tau members for me, please, on your Report of Election, simply by putting a little "ST" opposite their names.

Later, just as soon as the Sigma Tau national officers approve the procedure, I will send a letter of information and instructions to John Wilson, your Sigma Tau chapter president, telling him that all of his additional Sigma Tau members who are not Tau Beta Gamma members may also be initiated on January 27. A copy of that letter to Mr. Wilson will go to you, along with special membership election report forms now being printed. Active Sigma Tau members at Kansas State who are not members of Tau Beta Gamma can be initiated into Tau Beta Pi and have their national initiation fees paid by Sigma Tau headquarters.

A copple of weeks ago I wrote to you and Dr. Tillman indicating that the "merger" of your new Tau Beta Pi chapter and the Sigma Tau chapter should be delayed until later in the spring. I have changed my mind, after talking with Professor Forman of Sigma Tau. He told me over the phone late yesterday, when I reported the Tau Beta Pi approval of the merger to him, that he would telephone Dr. Tillman and urgerthat the "merger" of the two Kansas State chapters be accomplished on January 27.

I just wish that we had a little more time now to get those non-Tau Beta Gamma Sigma Tau people at Kansas State reported to me so that we

Mr. John R. Schlup —2— December 28, 1973

could have engraved keys, etc. ready for them on January 27. But time is going to run short before I can send "merger" instructions to John Wilson and get his report of Sigma Tau members who want to become Tau Beta Pi members at your installation. We'll all do the best we can under these scheduling difficulties.

So, finally, I agree completely all the points you make in your letter about dual-membership people, and I go even further by stating that those who are members of Sigma Tau only can also be initiated on January 27.

President George P. Palo and I will both want to say a few words on your installation program, please. Since Professor George W. Forman, president of Sigma Tau, also plans to be present at your function, it might be nice to have him speak briefly on your panquet program.

I will give you information about our travel plans, etc. later. Keep plugging away -- you are doing extremely well!

Sincerely yours,

Robert H. Nagel

RHN/swt

cc: Dr. Frank A. Tillman

RECEIVED

OEC 27 1973

Tau Beta Pi

Dec. 24, 1973

Dear Mr. Magel,
of am sorry that of
have not written sooner;
but, time was a scarce conversely during final week. and I model to make some arrangements before of could write this letter. In regards to the 29th we have treserved a place for the installation leginning at allout 3 occlosely The Second report should be ready and mailed by

being made for the banquet. Herident M. Cain (provident of Hansas State University) will be present and will be the Speaker at the banquet. Will you, Gratilist Pala, de both of you like to address at the banquet? can print-up ad the Symu Jane The meeting ( at one the larger 2 had seen), the worte was in favor of nerwhelmingh merger 1917 here were nery felv votes against the merger, However, there

were sufficient alles antess discussed this with John Wilson Gravident of ET and also a member of fau Beta Hamma, nd he explained the allowe to me. The also eppla notified the 5 officials of the attitudes the meeting. although the approving the morage, the me of Lyma Jan who are active in the organization do favor I feel at this timo resolve, and it is one which

me thave discussed ourlier. The question is open again about members common to both TBT and ST. .. The members want to go through the TBIT installation However they desire to use their 27 Imembership with respect to their inditation lees, if possible, Of course if the merger fails, the quettion is (or was) purely academic However, if Ithe merger is approved, they do have a walled point. Dr. Willman and & have discussed this and would like to see the situation handled in the Sollowing way By January 27th The

feel be paid from the ET We feel this request is Jeasonalle since the wate will have lieen completed. The only difference Metween doing It Il Stated allone and wenting for the morger of the TB It dend ET would The in their date of intimation initiation. I also feel that, If their initiation Twere delayed, of meaning from the TBN ceresnosy.
We hope you will agree with us.

Linearely yours,

John Hope

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Kansas Gamma Chapter, Tau Beta Pi\_cor Franks
Department of Industrial Engineering
Kansas State University
Manhattan, Kansas 66502
December 9, 1973

Mr. Robert H. Nagel, Secretary-Treasurer Tau Beta Pi Association P. O. Box 8840 University Station Knoxville, Tennessee 37916

Dear Mr. Nagel:

Enclosed are the Reports of Eligibility for the new Tau Beta Pi Chapter at Kansas State University. In the report we have included eligible seniors who graduated in 1971, 1972, and 1973, as well as the eligible juniors and seniors for the fall term, 1973. Since we have listed several different classes over a period of several years, the data concerning the determination of the eligible members is given here, rather than at the bottom of each report.

Eligible members from the graduating classes of 1971, 1972, and 1973, were selected as the upper one-fifth of the total graduates. This included 121 out of a total of 605 graduates. In the remaining cases the upper one-eight of the junior class and the upper one-fifth of the senior class were eligible. For the fall term of 1973 this included 21 eligible juniors out of a total of 168 and 58 eligible seniors out of a total of 290.

We estimate that 70 new members will be initiated during the January 27, 1974, ceremony and we, therefore, request 70 sets of electees' materials. It should also be noted on the reports that in the column designated "Present Members" a "CM" was used to denote the members of the petitioning chapter, Tau Beta Gamma, as Charter Members.

Thank you for your assistance.

70 Constitution

Sincerely,

Eric W. Schoeff,

Corresponding Secretary

Mr. John R. Schlup 1919 Hunting Manhattan, Kansas 66502

Dear John:

At its meeting yesterday, our Executive Council made a decision which changes one instruction I gave you earlier. It is as follows:

On January 27 we shall officially install your Kansas Gamma chapter of Tau Beta Pi, but we shall not "merge" the Kansas State Sigma Tau chapter into your new Tau Beta Pi chapter then. Such "merger" of the two chapters will occur later in the season, probably at the time of your spring initiation or some special date of your choice.

The reason for this decision is in part Sigma Tau's request that their founding chapter at the University of Nebraska be the first to be converted or merged into Tau Beta Pi. And we cannot get the Nebraska conversion done before your installation date. All of this is dependent, of course, on ratification of the Sigma Tau-Tau Beta Pi merger by the chapters of both organizations, which ratification voting is not yet completed nor resolved.

I am told by the president of Sigma Wau that the Kansas State chapter of his organization has voted not to merge with Tau Beta Pi. This puts you and the Tau Beta Pi idea in even a worse diplomatic position on your own campus. It is far better that we not talk about merging the Kansas State chapters until later in the season.

All of this still leaves you with certain problems about Tau Beta Gamma members who are also Sigma Tau members -- how do they want to come into Tau Beta Pi, if they want to come in at all? They will still have two routes open to them, as I said in my November 20 letter, their Sigma Tau membership and their Tau Beta Gamma membership. I believe that each of them should have the choice.

Our national president, Mr. George P. Palo, will be your official installing officer, and I'll be there on January 27 with him. More details about this later.

Sincerely yours,

cc: Mr. George P. Palo Dr. Frank A. Tillman

Robert H. Nagel

RHN/mm

flow 21, more catalogue caral. Could you sleave Lend Metureen 50 and 100 of these carela to our perment address in Manhattan, Kansas (please sand about 100 so that we will have no shortage for our membership, if this is possible). We will also need more of Those materials, if the Sigma Lan morger is approved! I think die have enough of the eligibility report forms. These thould

the completed and in the mail by Monday or Fileday.
Thank you for your help with this problem.

Sincerely yours,
your Il. Lahly

November 20, 1973 Professor George W. Forman 1655 University Drive Lawrence, Kansas 66044 Dear George: On the recommendation of our new Kansas State University successful petitioner, we have just approved the date of January 27, 1974 for the installation of that new chapter. Mark you calendar and plan to be with us, please. Further details later. Now, if the Tau Beta Pi-Sigma Tau merger is accomplished by then, we shall also be merging the Kansas State Sigma Tau chapter into the new Tau Beta Pi chapter at the same time. If that happens, and I hope it does, I very definitely insist on your presence! Kansas State is likely to be the first Sigma Tau-Tau Beta Pi chapter merger. My guess is that other such mergers, including the University of Kansas chapters, will occur at the time of the Tau Beta Pi spring initiation ceremonies in 1974. Do you have other thoughts on this matter? May I suggest your consulting with the Kansas Alpha Tau Beta Pi officers and other advisors about their preferences? Very best regards. Sincerely yours, Robert H. Nagel RHN/mm cc: Mr. George P. Palo Dr. Mancil W. Milligan

Mr. John R. Schlup 1919 Hunting Manhattan, Kansas 66502

Dear John:

Many thanks for your November 14 letter. I have consulted with President Palo and we approve January 27, 1974, a Sunday, for the installation of Kansas Gamma. We shall be there, with bells on!

The Sigma Tau merger question is not yet resolved by our chapter ratification balloting, so we cannot yet proceed firmly with any plans to merge Sigma Tau and Tau Beta Pi anywhere. However, as we discussed in Florida, if the merger is ratified by both Tau Beta Pi and Sigma Tau, then we certainly want to "merge" the present Kansas State Sigma Tau chapter into the new Kansas Gamma Tau Beta Pi chapter on January 27. We shall do this, although I don't have the precise details worked out yet, in a single initiation ceremony, although of course a separate Tau Beta Pi installation ceremony. In other words, Kansas Gamma of Tau Beta Pi will get the full installation treatment on January 27; and almost incidentally, we shall merge Sigma Tau into your Tau Beta Pi chapter.

This brings me to your question about the way in which present Sigma Tau members of Tau Beta Gamma will come into Tau Beta Pi. They will have two routes of eligibility for Tau Beta Pi membership — their Sigma Tau membership and their Tau Beta Gamma membership. You clearly indicate that most of these people want to come into Tau Beta Pi by way of their Tau Beta Gamma eligibility, and I don't blame them. We shall do it this way, certainly.

There is one technicality we shall have to work out however: If your active Sigma Tau members come into Kansas Gamma on the basis of their Sigma Tau eligibility, then the Sigma Tau national office will pay their Tau Beta Pi initiation fee and Convention assessment totalling \$26. But anybody who comes into Kansas Gamma without any Sigma Tau active member eligibility will have to pay the \$26 himself. I repeat, this is a technicality which we shall work out in the records. I am not going to collect another 26 bucks from a Tau Beta Gamma member who happens also to be a Sigma Tau active member. I am going to get that Tau Beta Gamma member's national initiation fee from Sigma Tau, not from him. But I will have to know who these people are so that I can bill the Sigma Tau central office for their initiation fees rather than your new chapter. Understand? Or have I made it clear as mud?

Thanks for instructing me to use Dr. Tillman's office as permanent mailing address for your chapter.

Mr. John R. Schlup

November 20, 1973

I'll be looking for your Report of Eligibility soon, as you say, and off we go! Let me know how many Tau Beta Pi brochures, etc., you want to send out in your initial mailing to all your people. Then tell me later how many sets of Constitution booklets, information booklets, etc. you will probably need to send to those who accept your invitation to Tau Beta Pi membership.

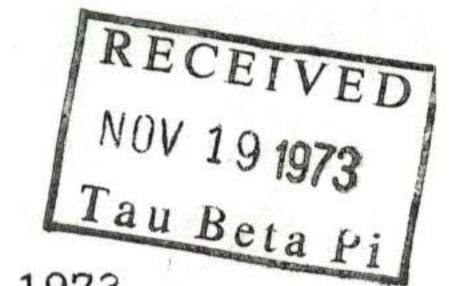
A little later I'll tell you who the official installing officer for Kansas Gamma will be (a member of the Executive Council) although I shall be there myself as well. And we ought to get the word to Sigma Tau so that they can have an opportunity to send an official representative, preferably their national president, Professor George Forman at the University of Kansas, who is also a Tau Bate.

Sincerely yours,

Robert H. Nagel

RHN/mm

cc: Mr. George P. Palo



November 14, 1973

Dear Mr. Nagel,

We would like to hold the installation of the Kansas Gamma chapter of Tau Beta Pi on January 27, 1974. If this date is unacceptable, please contact us as soon as possible so that we can quickly contact the alumni involved. We would also like to initiate the members of Sigma Tau at Kansas State on the same date shortly after the installation ceremony.

It was suggested in the various reference materials, that we establish a permanent mailing address. The following address will be used by our chapter:

Dr. Frank Tillman
Department of Industrial Engineering
Kansas State University
Manhattan, Kansas 66502

We do have one question about our initiation. Dr. Tillman explained that there was some question as to the status of the members of Tau Beta Gamma who are also members of Sigma Tau. Will they go through the Tau Beta Gamma ceremony or must they go through with the Sigma Tau initiates? I know that they personally would prefer to be initiated as members of Tau Beta Gamma. If you could quickly answer this question, we would greatly appreciate it.

Also, some of the material from your office has been sent to my home address. It often takes several days for it to be forwarded to me. My present address is:

> John R. Schlup 1919 Hunting Manhattan, Kansas 66502

We almost have the necessary information gathered to contact the eligible alumni. They will be notified shortly and the Report of Eligibility should be sent to you within about ten days. Things seem to be moving along well and everyone is looking forward to the installation and initiation.

Sincerely yours,

Sigma Tau members in need of keys and certificates:

Grosh, Doris Lindly, Edwin Merklin, Joseph Rosebraugh, Vernon Adams, William Andreasen, Carl Bailey, Thomas Baker, Roger Bascom, Robert Beier, Richard Beil, Lawrence Biery, Rick Black, Robert Brockmeier, Craig Covert, Chris Grawford, Roderick Feldhausen, Bruce Poncannon, Robert Grapengater, Richard Craves, Norman Gray, Donald Green, Larry Grennan, Thomas Haun, Randal Hoffman, Lawrence Jackson, Bruce Johnson, Russell Jones, Larry Hellner, Timothy Koelsch, Richard Koudele, Larry Larsen, Milton McKinnis, Steve Mikols, Wayne Moore, James Mudd. Patrick Newcomer, Randy Facey, David Falmer, David

Paris, Robert LParrott, William Rempel, Don Remsberg, Brent Banford, Wayne Someck, Gary Schuler, Andrew Sheets, Marla Shorney, Jay esteler, Larry Stickley, Karl Swisher, Vicki Sydney, Craig Splvester, Alan Teel, Douglas Turner, Keith Wegener, Dennis Sallivan, Charles

Schlief, John R.
Duncan, James M.
Dolmer, Rager Phillip
Garkoon, alan D.
Jerno, Edward F.

The following people turned in Sigma Tau Catalog Cards, but were already members of Tau Beta Gamma (Therefore, they do not need certificates or keys):

Duncan, James Juno, Edward Schlup, John

I was a second

The following people failed to complete catalog cards to be included in the original Report of Election. They have since completed the cards, which you will find enclosed.

Tau Beta Gamma members: Hull, Janet Flanders, William (No key or certificate)
Sadek, El-Magboub

Tau Beta Gamma and Sigma Tau members Napier, Bruce

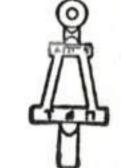
Pirasteh Far, Hassan (Pirasteh is last name)

All of the above people will need certificates.

Cards are also included for the following two people who were initiated at the January 27, 1974 initiation, Both of these men replied too late to be included on the original Report of Election. They will need both keys and certificates.

Keast, Mark Michal, Norman NATIONAL ENGINEERING HONOR SOCIETY
MEMBER OF ASSOCIATION OF COLLEGE HONOR SOCIETIES

FOUNDED 1885



INCORPORATED 1947

P.O. BOX 8840, UNIVERSITY STATION KNOXVILLE, TENNESSEE 37916 TELEPHONE: 615/546-4578

SECRETARY-TREASURER ROBERT H. NAGEL November 16, 1973

The New Chapter Officers

University of South Florida

Mr. Frederick E. Miller Dr. M. R. Donaldson

Loyola Marymount University

Mr. Robert W. Prindle Father R. J. Arenz, S.J. Northrop Institute

Mr. John D. Binder Professor Henri Feiner

Kansas State University

Mr. John R. Schlup Dr. Frank A. Tillman

Dear Friends:

In Gainesville three weeks ago I gave you, among many other things, one copy of the Tau Beta Pi President's Book and four copies of the manual called "The Advisory Board in Tau Beta Pi." Throw those old materials away, please, and replace them with the enclosed new editions.

To the student presidents of your four new chapters there is enclosed a copy of the new President's Book. Put it in the zippered binder in place of the old material.

To the faculty advisors of each of your chapters there are enclosed four copies of the new edition of "The Advisory Board in Tau Beta Pi." Please distribute these to the four persons who will serve as advisors of your chapters, and discard the old ones.

We had wanted to get these two new instructional booklets finished in time for distribution at the Florida Convention, but the printer was slow and has just finished them now.

Sincerely yours,

Robert H. Nagel

**Buly 5, 1973** 

Dr. Frank A. Tillman
Department of Industrial Engineering
Kansas State University
Manhattan, Kansas 66506

Dear Frank:

I have just received from you two cartons of the booklet "This is Kansas State University" and eight-page yellow reprint titled "KSU Engineering."

This gives me everything I need for the Tau Beta Gamma petition, thank you very much. All these materials from our four petitioning groups will go out to our Convention delegates and National Officers very shortly.

Very best regards.

Sincerely yours,

Robert H. Nagel

RHN/mm

cc: Assistant Dean Kenneth K. Gowdy

June 19, 1973

Assistant Dean Kenneth K. Gowdy Seaton Hall College of Engineering Kansas State University Manhattan, Kansas 66506

Dear Dean Gowdy:

I have your June 14 letter, thank you. All considered, let's choose the "This is Kansas State University" booklet to accompany the Tau Beta Gamma petition. Please have 200 copies of this booklet sent to me. I'll send them out with the petition pamphlets to all of our Convention people early in July.

Please be sure to include that one page compilation of engineering course requirements.

To cover all eventualities, I am asking Frank Tillman to bring to our Florida Convention in October half a dozen copies of the KSU General Catalog, so that any delegate who is particularly concerned can have his curiosity satisfied. Also, Dr. Tillman and your student representative should bring 25 or so extra copies of the Tau Beta Gamma petition and of the "This is KSU" booklet to replace those lost by a few of our delegates over the summer.

With my very best regards.

Sincerely yours,

Robert H. Nagel

RHN/mm

Office of the Dean College of Engineering Seaton Hall Manhattan, Kansas 66506 Phone: 913 532-5590

June 14, 1973

Mr. Robert Nagel
Secretary-Treasurer
Tau Beta Ti Association
P. O. Box 8840
University Station
Knoxville, Tennessee 37916

RECEIVED
JUN 19 1973
Tau Beta Pi

Dear Mr. Nagel:

Dr. Tillman advised me of your request for 225 General Catalogs. Assuming that your delegates are interested in gaining perspective about the "character" of our institution and student body, I would like to suggest an alternative publication, "This is Kansas State University". It has much more information about admission practices, student services, and history of KSU, in addition to brief summaries about the curricula offered by each college. For those who are interested in course requirements for engineering degrees, a one page compilation is included.

Copies of both publications are enclosed for your inspection. Please let me know which you would like to have shipped.

Sincerely,

Kenneth K. Gowdy Assistant Dean

KKG:sk

Enc.

cc: Dr. Frank Tillman

Dean Cecil Best

P.S. "This is KSU" is available to us at no charge. The General Catalogs will cost us \$1.50 each.



## KANSAS STATE UNIVERSITY

CHEMICAL ENGINEERING
1971-72 Biennial Report

DEPARTMENT OF CHEMICAL ENGINEERING CHEMICAL ENGINEERING BUILDING

Manhattan, Kansas 66506

#### Chemical Engineering Department Kansas State University

July 1, 1970 - June 30, 1972

#### I. Instruction

#### A. Course and Curriculum

Two recent developments in the Chemical Engineering curriculum are the offering of an Integrated Masters Degree Program and a Dual Degree Program with the Department of Chemistry. Students successfully completing the Masters Program receive a B.S. in Chemical Engineering at the end of four years and a Master of Science in Chemical Engineering at the end of five years. Participants in the program must have completed the sophomore year and have compiled an outstanding scholastic record. Features of the program include participation in research as an undergraduate and enrollment in graduate level courses in the senior year. To satisfy the Dual Degree Program with the Department of Chemistry the requirements of both curricula must be met and a minimum of 150 credit hours completed. It is expected that graduates of this program will be much in demand by the chemical industry and well suited for graduate work in either field.

A further development is the introduction of greater flexibility in the selection of engineering science courses from outside the department. While all selections must be made in consultation with a faculty member and meet the requirements of the college, the student does have a somewhat greater opportunity to pursue particular interests of his choice than before.

The Chemical Engineering courses within the curriculum remain rather highly structured. The first course is devoted to developing problem solving skills. The courses in the junior year and first part of the senior year are the basic chemical engineering sciences of thermodynamics, transport phenomena, reaction engineering, process dynamics and separation techniques. The course in optimization is also taken the first semester of the senior year and provides an effective bridge between the engineering science courses and the final semester which is devoted exclusively to systems design and synthesis.

#### B. Student Activities and Honors

The A.I.Ch.E. student chapter held seven meetings last year.
This included a mixer for all chemical engineering students and faculty,
an open house work session, election of officers, and speeches by two

visitors from off campus. There was also a spring picnic held at Tuttle Creek Lake. Seventy-four undergraduates paid their dues.

Intramural athletics was expanded last year. Our students were 3 and 2 in basketball, 4 and 2 in touch football, 5 and 2 in baseball, 3 and 3 in volleyball and they won 7th. place with 18 points in the track competition.

Many members carried chemical engineering recruiting literature back to their High School science teachers, counselors and students.

Mr. Dale Zellers won the A.I.Ch.E. scholarship award. Miss Suzanne Seyfert was elected to membership in Steel Ring, honorary fraternity. Thomas Carlisle, Robert Mann, Jim Roth, and Ford Walker were initiated into Sigma Tau, honorary fraternity.

Plans were made for the student chapter to give awards of Chemical Engineering Handbooks to top scholarship students. A total of \$180 was donated by industrial firms for this purpose.

#### II. Facilities

For the past year the Department of Chemical Engineering has been involved in the final stages of planning for a new Chemical Engineering building. As this has become more and more a reality, less and less has been done to upgrade our present outdated facilities. The major improvements in facilities have come, therefore, from the acquisition of moveable equipment.

#### A. Teaching

During the past year the department's Wang Electronic Calculator has been expanded to three keyboards and two card readers. These units are in heavy demand by the undergraduates, graduates, and faculty. The additional card reader has aided instruction in the Chemical Engineering Computational Techniques course where the electronic calculator is used extensively. With the addition of an Instrument Maker position on the staff, work has begun in rebuilding and upgrading some of the undergraduate laboratory experiments. The purchase of a new psychrometer will aid in gathering data on the rotary dryer and wetted-wall column experiments.

#### B. Research

Recent additions for the department's research include: A

diffusion pump vacuum system, two Bausch & Lomb Spectrophotometers, a Luminescence Biometer, a Dissolved Oxygen Analyzer, and a Hasselblad camera.

#### III. Personnel

## A. Chemical Engineering Faculty, 1970-71, 1971-72

The following table shows the age of the faculty ranges from 29 to 58 with an average age for all faculty of 42 years. Ten of the 11 faculty listed have earned Doctorate degrees.

Of the eleven faculty members, as of June, 1972, four, including the Department Head, hold the rank of Full Professor, three hold the rank of Associate Professor, and four hold the rank of Assistant Professor. One of the full professors serves as the Director of the Kansas Industrial Extension Service.

Chemical Engineering Faculty

1971-72

	Date of Birth	Age 6/72	Degrees Earned			Date of Appointment			
			B.S.	M.S.	Ph.D.	Inst.	Ass't.	Assoc.	Ful1
Bates	9/13	58	35	38	41			58	60
Erickson	10/38	33	60	-	64	64	65	68	<u></u>
Fan	8/29	42	51	54	57	58	59	61	63
Honstead	5/16	56	39	46	56	-	45	47	57
Kyle	12/27	44	50	55	58	ale distribution of the second	58	61	64
Akins	12/34	37	57	58	62	-	63	67	
Matthews	5/36	36	59		65		62	71	
Hall	1/18	54	41	51		/	52		
Heymach*	11/42	29	64	66	69	-	69	_	
Retzloff	2/39	33	63	65	67		69		
Walawender	9/41	30	63	67	69		69		

Resigned 8/1/72

## B. Faculty Service and Special Honors

During the two year period, the members of the chemical engineering faculty served the local, state, national and international communities in a variety of ways. Their service activities included active participation in international meetings and exchange programs, national meetings and professional organizations, local meetings and professional organizations, and service to other organizations as consultants.

The American Institute of Chemical Engineers and the American Chemical Society offer many opportunities to chemical engineers for professional service. Members of the faculty served on committees, presented papers at society meetings, organized and chaired symposia at society meetings, and reviewed manuscripts. In the American Institute of Chemical Engineers, H. T. Bates is on the Chemical Engineering Education Projects Committee, W. H. Honstead is on the Continuing Education Committee and chairman of the Postgraduate Education Subcommittee of the Program Committee, and L. E. Erickson is on the Food and Bioengineering Division Program Committee. L. T. Fan, W. W. Walawender, and L. E. Erickson authored or coauthored papers at national and/or international meetings. R. G. Akins, L. T. Fan, D. G. Retzloff, B. G. Kyle, J. C. Matthews and L. E. Erickson served various societies and journals by reviewing manuscripts and/or books. The journals served included AIChE Journal, I.E.C. Fundamentals, I.E.C. Process Design and Development, Journal of Physical Chemistry, Journal of Chemical and Engineering Data, Canadian Journal of Chemical Engineering, Chemical Engineering Science, Desalination, International Journal of Engineering Science, Biotechnology and Bioengineering, Automatica and International Journal of Heat and Mass Transfer.

Several members of the faculty were also active in other professional societies such as the American Society of Engineering Education and the American Water Resources Association. J. C. Matthews participated in the NASA-ASEE summer program for college professors.

At the state and local level, some members were active in the Wichita Section of the American Institute of Chemical Engineers and the Kansas Engineering Society. W. H. Honstead was on the publicity committee of the Kansas Engineering Society and was Vice President of the Tri-Valley Chapter. Other state and local activities included visits to high schools, colleges, and civic organizations to make presentations.

Services to government and industry through invited lectures, formal consulting arrangements, and informal conferences often benefit the faculty members involved as well as the groups receiving the service. Companies and government agencies being served in this way include Corning, Gulf, Phillips Petroleum, Midwest Research Institute, and the Environmental Protection Agency. In addition, a number of proposals were reviewed for the National Science Foundation and the Environmental Protection Agency. L. T. Fan was a consultant to EPA.

Service on an international basis through a formal arrangement for the exchange of technical information between leading Japanese environmental engineers and faculty members at Kansas State who are involved in environmental systems engineering was financed jointly by the U.S. and Japanese governments. Several invited lectures were also presented in some Oriental and European countries.

#### IV. Research

During the two years period, the department carried out many research projects on the fundamental aspects of chemical engineering, such as transport phenomena, chemical reaction engineering and thermodynamics. The activities in these areas were mainly supported by NSF, EES, and the department. However, to specifically demonstrate the relevance of the department to the State of Kansas and to the society in general areas of obvious interest are listed below with a brief description of the work being done in each area.

#### Air Pollution

The department continues to be involved in air pollution studies and over the past year the effort in this area has intensified as evidenced by two grants from EPA.

#### Feedlot Runoff

The problem of runoff from feedlots is a natural one for chemical engineers to solve. The movement and filtration of multicomponent streams through porous media were studied. This area of these research activities were supported mainly by AES.

## Municipal Waste Treatment

The work in this area was very extensive. Efforts were devoted to developing new methods of treatment and to the optimal design and operation of existing methods. External financial supports were obtained from EPA and KWRRI.

7

## Food Science and Grain Processing

The department has a rapidly expanding effort in this area and is participating in an interdisciplinary program with other interested departments on campus. Major emphasis was on the production of single cell proteins from hydrocarbons. The grain processing research emphasized the design and evaluation of mixers and effects of handling methods on storage volume.

#### V. Publications

## A. Graduate Student Theses and Reports

#### 1. M.S. Report

#### SPRING, 1971

Ruth Yu-Li Yeh Lin -- Systematic Review of Solids Mixers and Their Performances

#### 2. M.S. Thesis

#### FALL, 1970

Bong Hyon Chang -- An Experimental Investigation of Natural Convection in Mercury at Low Grashof Numbers

Shonh-Shyong Hero Lee -- Analysis of Microbial Growth in a Tower System

Rekha Shankar Rege -- Modeling and Optimization of Water Quality in Streams

#### SPRING, 1971

Bhuwan Chandra Pande -- Analysis and Optimization of the Water-Vapor Electrolysis Cell

Douglas Earl Robker -- Analysis and Properties of a Ouaternary Ammonium-Triiodide Ion Exchange Disinfection Process

Jaiprakash Shivram Shastry -- Use of Spectral Analysis and Nonlinear
Parameter Estimation Techniques in
Analyzing Water Quality Information
Systems

Adrian Charles Snyder -- A Theoretical Investigation of Poisoning Effects on Polyfunctional Catalysts

#### SUMMER, 1971

Tarun Kumar Ghai -- Nonlinear Parameter Estimation in Continuous
Tower Fermentation Systems

#### FALL, 1971

David Francisco Cala-Hederich -- Determination of Rheological Data of Silica Suspensions with a Capillary Viscometer

Michael Paul Newcomer -- Oxygen Adsorption in Three Phase Fluidized Beds

FALL, 1971 (continued)

Wayne Otis Vanderpool -- Recycling of Solid Wastes as Solid Waste-Polymer Composites Formed by Radiation Induced Polymerization

#### 3. Ph.D. Dissertation

#### SPRING, 1971

Gilbert Kuo-Cheng Chen -- Effects of Axial Dispersion on the Optimal of the Biochemical Reactor System

Charles Max French -- Non-Newtonian Laminar Dispersion

#### SUMMER, 1971

Jie Tsai Tseng - Computational Aspects of the Optimal Control a Class of Distributed Parameter Systems

Kerry Fred Williams -- Catalyst Modifications and the Performance of Stability Limited Packed Bed Tubular Reactors

#### FALL, 1071

Sung Jen Chen -- The Mixing of Particulate Solids in a Motionless Mixer

Shen Show Chen -- Transport Processes in a Membrane Oxygenator and a Tapered Tube with Suction and Injection

#### SPRING, 1972

Shen-Yann Chiu -- Modeling of Kinetics and Significance of ATP Measurements in an Activated Sludge System

Yuji Horie - Air Pollution Modeling, Simulation, and Control

Norman Custodio Pereira -- Systems Analysis, Optimization and Control of Life Support Systems in Confined Spaces

Piyush Shantilal Shah -- Modeling, Analysis and Control of Biochemical Reactors

#### SUMMER, 1972

Kumio Osakada -- Study of System Synthesis Techniques and its Application to Chemical Processes

#### B. Faculty Publications

- Fan, L. T., "Simultaneous Effect of Macromixing and Micromixing on Growth Processes, AIChE 67th National Meeting, Atlanta, Georgia, February 15-18, 1970. With B. I. Tsai, and L. E. Erickson.
- Fan, L. T., "Entrance Region Flow of the Bingham Fluid in a Circular Pipe," AIChE Journal, 16(2), pp. 293-299, March 1970. With S. S. Chen, and C. L. Hwang.
- Fan, L. T., "Optimal Startup Control of a Jacketed Tubular Reactor," 11th Joint Automatic Control Conference of the American Automatic Control Council, Atlanta, Georgia, June 22-26, 1970, Paper No. 19-A, pp. 451-461. With D. R. Hahn, and C. L. Hwang.
- Fan, L. T., "Solids Mixing," Industrial and Engineering Chemistry, 62(7), pp. 53-69, July 1970. With S. J. Chen, and C. A. Watson.
- Fan, L. T., "Control of a Class of Nonlinear Distributed Parameter Systems Via Direct Search on the Performance Index," IFAC Kyoto Symposium on Systems Engineering Approach to Computer Control, Kyoto, Japan, August 11-14, 1970, pp. 170-175. With D. R. Hahn, and C. L. Hwang.
- Fan, L. T., "Consideration of Sensitivity and Parameter Uncertainty in Optimal Process Design," I & EC Process Design and Development, 9(4), pp. 514-521, October, 1970. With L. E. Erickson, and M. S. K. Chen.
- Fan, L. T., "Growth Models of Cultures with Two Liquid Phases: IV. Cell Adsorption, Drop Size Distribution, and Batch Growth," Biotechnology and Bioengineering, XII, pp. 713-746, 1970. With L. E. Erickson, P. S. Shah, and M. S. K. Chen.
- Fan, L. T., "Effects of Axial Dispersion on the Optimal Design of the Activated Sludge Process," Water Research, 4, pp. 271-284, 1970. With G. K. C. Chen, L. E. Erickson, and M. Naito.
- Fan, L. T., "Systems Analysis and Economic Optimization of Dual Purpose Power and Desalting Systems," 3rd International Symposium on Fresh Water from the Sea, 3, pp. 231-251, 1970. With C. L. Hwang, N. C. Pereira, L. E. Erickson, and C. Y. Cheng.
- Fan, L. T., "System Analysis and Economic Optimization of Reverse Osmosis Desalination Processes," 3rd International Symposium on Fresh Water from the Sea, 2, pp. 371-384, 1970. With J. T. Tseng, C. L. Hwang, and L. E. Erickson.
- Fan, L. T., "Applications of Modern Optimal Control Theory to Environmental Control of Confined Spaces and Life Support Systems, Part 1 Modeling and Simulation," Build. Sci., 5, pp. 57-71, 1970. With Y. S. Hwang, and C. L. Hwang.

- Fan, L. T., "Simulation of Reacting Systems using S/360 CSMP," Proceedings of the Conference on Applications of Continuous System Simulation Languages, 63, San Francisco, California, 1970. With P. S. Shah, and L. E. Erickson.
- Fan, L. T., "Collection and Analysis of Water Ouality Data,"
  Report #19, Institute for Systems Design and Optimization, Kansas State
  University, Manhattan, Kansas, February, 1970. With J. S. Shastry,
  and L. E. Erickson.
- Fan, L. T., "Simulation of Biological Processes by Analog and Digital Computers," Report #20, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, July, 1970. With P. S. Shah, and L. E. Erickson.
- Fan, L. T., "Systems Analysis and Optimization of an Electrodialysis Desalination Process," Report #21, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, July, 1970. With K. Osakada, N. C. Pereira, C. L. Hwang, and L. E. Erickson.
- Fan, L. T., "A Review on Mathematical Models of the Human Thermal System," Report #22, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, July, 1970. With F. T. Hsu, and C. L. Hwang.
- Fan, L. T., "Steady-State Simulations of the Human Thermal System," Report #23, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, July, 1970. With F. T. Hsu, and C. L. Hwang.
- Fan, L. T., "The Surface Renewal Principal: A Consideration of Two Turbulent Heat Transfer Models," Israel Journal of Technology, 8(6), pp. 439-444, 1970. With L. C. Thomas.
- Fan, L. T., "Computation of Near-Optimal Control Policies for Free-Radical Polymerization Reactors," Journal of Applied Polymer Science, 14, pp. 3065-3082, 1970. With K. Osakada.
- Fan, L. T., "Applications of Modern Optimal Control Theory to Environmental Control of Confined Spaces and Life Support Systems, Part 3--Optimal Control of Systems in which State Variables have Equality Constraints at the Final Process Time," Build. Sci. 5, pp. 125-136, 1970. With Y. S. Hwang, and C. L. Hwang.
- Fan, L. T., "Applications of Modern Optimal Control Theory to Environmental Control of Confined Spaces and Life Support Systems, Part 4--Control of Systems with Inequality Constraints Imposed on State Variables," Build. Sci., 5, pp. 137-147, 1970. With Y. S. Hwang, and C. L. Hwang.
- Fan, L. T., "Applications of Modern Optimal Control Theory to Environmental Control of Confined Spaces and Life Support Systems, Part 5— Optimality and Sensitivity Analysis," Build. Sci., 5, pp. 149-152, 1970. With Y. S. Hwang, and C. L. Hwang.

- Fan, L. T., "Modeling Feedlot Runoff Pollution I. Analog Simulation," Transactions of the ASAE, 13(6), pp. 859-863, 1970. With S. F. Kang, E. S. Lee, and L. E. Erickson.
- Fan, L. T., 'Modeling Feedlot Runoff Pollution II. Quasilinearization," Transactions of the ASAE, 13(6), pp. 864-869, 1970. With S. F. Kang, E. S. Lee, and L. E. Erickson.
- Fan, L. T., "Evaluation of a Motionless Mixer Using a Radioactive Tracer Technique," Powder Technology, 4, pp. 345-350, 1970/71. With S. J. Chen, N. D. Eckhoff, and C. A. Watson.
- Fan, L. T., "Surface Renewal and Penetration Models in the Transient State," AICHE Journal, 17(1), pp. 154-160, January, 1971. With Benjamin T. F. Chung, and C. L. Hwang.
- Fan, L. T., "Optimization of Traffic Flow Systems," Report #24, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, January, 1971. With C. L. Hwang, and M. A. Shaikh.
- Fan, L. T., "A Model for Turbulent Transfer in the Wall Region,"
  Journal of the Engineering Mechanics Division, Proceedings of the
  American Society of Civil Engineers, 97(EM1), pp. 169-174, February, 1971.
  With L. C. Thomas.
- Fan, L. T., "Simultaneous Effect of Macromixing and Micromixing on Growth Processes," AIChE Journal, 17(3), pp. 689-696, May, 1971. With B. I. Tsai, and L. E. Erickson.
- Fan, L. T., "A Review on Mathematical Models of the Human Thermal System," IEEE Transactions on Bio-Medical Engineering, EME-18, pp. 218-234, May, 1971. With F. T. Hsu, and C. L. Hwang.
- Fan, L. T., "Optimization of Equipment Investment," J. Operations Research Soc. of Japan, 14(1), pp. 19-34, June, 1971. With C. L. Hwang, and Jose E. Daccarett.
- Fan, L. T., "General Mathematical Models of Transport Processes with and without Chemical Reactions," The Canadian Journal of Chemical Engineering, 49, pp. 340-346, June, 1971. With Benjamin T. F. Chung, and C. L. Hwang.
- Fan, L. T., "Optimal Reliability of a Complex System," IEEE Transactions on Reliability, R-19(3), August, 1970. With F. A. Tillman, C. L. Hwang, and K. C. Lai.
- Fan, L. T., "Optimization of Life Support Systems Reliability by an Integer Programming Method," AIIE Transactions, III (3), pp. 229-238, September, 1971. With C. L. Hwang, F. A. Tillman, and S. Kumar.
- Fan, L. T., "Review of Atmospheric Dispersion and Urban Air Pollution Models," CRC Critical Reviews in Environmental Control, 2(3), pp. 431-457, October, 1971. With Y. Horie.

- Fan, L. T., "On the Merits of Partial Fluid Mixing in the Biochemical Reactor System," Presented at the 21st C.S.Ch.E. Chemical Engineering Conference, Montreal, Quebec, Canada, October 12-15, 1971. With Gilbert K. C. Chen, and L. E. Erickson.
- Fan, L. T., "A Reversed Two-Environment Model for Micromixing in a Continuous Flow Reactor," The Canadian Journal of Chemical Engineering, 49, pp. 704-708, October, 1971. With M. S. K. Chen.
- Fan, L. T., "Steady-State Optimization of an Integrated Human Thermal System," Presented at the 24th ACEMB, Las Vegas, Nevada, October 31-November 4, 1971. With Fu-Tong Hsu, and C. L. Hwang.
- Fan, L. T., "Optimal Startup Control of a Jacketed Tubular Reactor," AICHE Journal, 17(6), pp. 1394-1401, November, 1971. With D. R. Hahn, and C. L. Hwang.
- Fan, L. T., "Optimization of Power Plant Cooling Water Discharge in Streams," Journal of the Power Division, Proceedings of the American Society of Civil Engineers, PO 4, pp. 841-860, December, 1971. With J. T. Tseng, and C. L. Hwang.
- Fan, L. T., "Dispersion Model for a Stream with Several Waste Inputs and Water Intakes," Water Resources Bulletin, Journal of the American Water Resources Association, 7(6), pp. 1210-1220, December, 1971. With Rekha S. Nadkarni, and L. E. Erickson.
- Fan, L. T., "Macroscopic Model of Urban Air Pollution," Environmental Letters, 2(1), pp. 1-12, 1971. With Y. Horie.
- Fan, L. T., "Simulation Study of Highway Air Pollution," Environmental Letters, 2(2), pp. 89-99, 1971. With Y. Horie.
- Fan, L. T., "Transport Rate of COD Through a Wet Porous Stratum -- Measurement of Diffusivity of Cattle Manure Solution," Transactions of the ASAE, 14, pp. 720-726, 1971. With S. K. Choi, L. E. Erickson, and R. I. Lipper.
- Fan, L. T., "Modeling and Optimization of a Tower-Type Activated Sludge System," Biotechnol. & Bioeng., Symp. No. 2, pp. 141-173, 1971. With S. S. Lee, and L. E. Erickson.
- Fan, L. T., 'Management of Optimum Water Quality in a Stream," Water Research, 5, pp. 1005-1021, 1971. With R. S. Nadkarni, and L. E. Erickson.
- Fan, L. T., "The Reversed Two-environment Model of Micromixing and Growth Processes," J. Appl. Chem. Biotechnol., 21, pp. 307-312, October, 1971. With B. I. Tsai, L. E. Erickson, and M. S. K. Chen.
  - Fan, L. T., "Effect of Handling Methods on Bulk Volume and Homogeneity of Solid Materials," Journal of Food Science, Institute of Food Technologists, 36, 1971. With S. J. Chen, D. S. Chung, and C. A. Watson.

- Fan, L. T., "Efficiency and utility of collocation methods in solving the performance equations of flow chemical reactors with axial dispersion," Chemical Engineering Science, 26, pp. 379-387, 1971. With G. K. C. Chen, and L. E. Erickson.
- Fan, L. T., "Feedforward-feedback control of distributed parameter systems," Int. J. Control, 13(2), pp. 363-382, 1971. With D. R. Hahn, and C. L. Hwang.
- Fan, L. T., "A Model of Heat Transfer in Fluidized Beds," Transactions of ASME, Journal of Heat Transfer, paper #71-HT-Z, 1971. With Benjamin T. F. Chung, and C. L. Hwang.
- Fan, L. T., "Heat and Momentum Transfer Analogy for Incompressible Turbulent Boundary Layer Flow," SHORTER COMMUNICATIONS, Int. J. Heat Mass Transfer, 14, pp. 715-717, 1971. With L. C. Thomas.
- Fan, L. T., "Optimal Set-Point Change Control of a Tubular Heat Exchanger," Journal of the Chinese Institute of Chemical Engineers, 2, pp. 1-12, 1971. With D. R. Hahn, and C. L. Hwang.
- Fan, L. T., "Adaptation of the Surface Rejuvenation Model to Turbulent Heat and Mass Transfer at a Solid-Fluid Interface," Ind. Eng. Chem. Fundam., 10(1), pp. 135-139, 1971. With L. C. Thomas.
- Fan, L. T., "Comparison of Moments, S-Plane, and Frequency Response Methods for Analyzing Pulse Testing Data from Flow Systems," I & EC Process Design & Development, 10(4), pp. 425-430, 1971. With J. L. Johnson, and Y. S. Wu.
- Fan, L. T., "Use of Spectral Analysis in Analyzing Water Quality Data," Report #25, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, 1971. With J. S. Shastry, and L. E. Erickson.
- Fan, L. T., "Sequential Unconstrained Minimization Technique (SUMT) for Optimal Production Planning," Report #26, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, 1971. With F. T. Hsu, and C. L. Hwang.
- Fan, L. T., "Optimization of a Multistage Reverse Osmosis Desalination System Based on the Plug Flow Model for the Bulk Flow in the Membrane Unit," Report #27, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, May 1971. With J. T. Tseng, L. E. Erickson, and C. L. Hwang.
- Fan, L. T., "Conjugate Gradients Searching Techniques for Production Planning," Report #28, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, June, 1971. With C. L. Hwang, and N. C. Pereira.
- Fan, L. T., "Optimal Feedback Control A Synopsis," Report #29, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, July, 1971. With N. C. Pereira, and C. L. Hwang.

- Fan, L. T., "A Gradient Technique for Optimal Production Planning," Report #30, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, June, 1971. With C. L. Hwang.
- Fan, L. T., "On Sensitivity to Parameter Variation of Process Systems," Report #31, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, July, 1971. With L. E. Stamets, and C. L. Hwang.
- Fan, L. T., "Biochemical Engineering Symposium Proceedings," Report #32, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, June, 1971. With L. E. Erickson.
- Fan, L. T., 'Modeling of Air Flow and Air Quality in Model-Systems of Caged Rodent Laboratories," Publication 72-01, Institute for Environmental Research, Kansas State University, Manhattan, Kansas, February, 1971. With N. C. Pereira.
- Fan, L. T., "Methods of Optimization -- Introduction and Volume 1 Unconstrained Optimization and the Differential Calculus," Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, August, 1971. With L. E. Erickson, and C. L. Hwang.
- Fan, L. T., "Methods of Optimization -- Volume 2 Equality Constraints and Optimization," Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, August, 1971. With L. E. Erickson, and C. L. Hwang.
- Fan, L. T., 'Methods of Optimization -- Volume 3 Search Techniques," Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, October, 1971. With L. E. Erickson, and C. L. Hwang.
- Fan, L. T., "Methods of Optimization -- Appendix 1 Determinant and Matrix," Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, October, 1971. With L. E. Erickson, and C. L. Hwang.
- Akins, R. G., "Optimization by Parameter Sweep Technique," Electronic Associates, Inc., Bulletin #150008, 7.6.14a, February, 1971. With P. S. Shah.
- Erickson, L. E., "Growth Models of Cultures with Two Liquid Phases: IV. Cell Adsorption, Drop Size Distribution, and Batch Growth," Biotechnology and Bioengineering, XII, pp. 713-746, 1970. With L. T. Fan, P. S. Shah, and M. S. K. Chen.
- Erickson, L. E., "Effects of Axial Dispersion on the Optimal Design of the Activated Sludge Process," Water Research, 4, pp. 271-284, 1970. With L. T. Fan, and M. Naito.

- Erickson, L. E., "Iterative Techniques in Optimization: II. The Linearity Difficulty in Dynamic Programming and Quasilinearization," AICHE Journal, 16(4), pp. 639-644, July, 1970. With Colin McDermott, and E. S. Lee.
- Erickson, L. E., "Consideration of Sensitivity and Parameter Uncertainty in Optimal Process Design," I & EC Process Design and Development, 9(4), pp. 514-521, October, 1970. With L. T. Fan, and M. S. K. Chen.
- Erickson, L. E., "Systems Analysis and Economic Optimization of Dual Purpose Power and Desalting Systems," 3rd International Symposium on Fresh Water from the Sea, 3, pp. 231-251, 1970. With C. L. Hwang, L. T. Fan, N. C. Pereira, and C. Y. Cheng.
- Erickson, L. E., "Systems Analysis and Economic Optimization of Reverse Osmosis Desalination Processes," 3rd International Symposium on Fresh Water from the Sea, 2, pp. 371-384, 1970. With L. T. Fan, J. T. Tseng, and C. L. Hwang.
- Erickson, L. E., "Simultaneous Effect of Macromixing and Micromixing on Growth Processes, AIChE 67th National Meeting, Atlanta, Georgia, February 15-18, 1970. With L. T. Fan, and B. I. Tsai.
- Erickson, L. E., "Simulation of Reacting Systems using S/360 CSMP," Proceedings of the Conference on Applications of Continuous System Simulation Languages, 63, San Francisco, California, 1970. With L. T. Fan, and P. S. Shah.
- Erickson, L. E., "Collection and Analysis of Water Quality Data," Report #19, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, February, 1970. With L. T. Fan, and J. S. Shastry.
- Erickson, L. E., "Simulation of Biological Processes by Analog and Digital Computers," Report #20, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, July, 1970. With L. T. Fan, and P. S. Shah.
- Erickson, L. E., "Systems Analysis and Optimization of an Electrodialysis Desalination Process," Report #21, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, July, 1970. With L. T. Fan, K. Osakada, N. C. Pereira, and C. L. Hwang.
- Erickson, L. E., "Transport Rate of COD Through a Wet Porous Stratum -- Measurement of Diffusivity of Cattle Manure Solution," Transactions of the ASAE, 14, pp. 720-726, 1971. With S. K. Choi, L. T. Fan, and R. I. Lipper.
- Erickson, L. E., "Modeling and Optimization of a Tower-Type Activated Sludge System," Biotechnol. & Bioeng., Symp. No. 2, pp. 141-173, 1971. With S. S. Lee, and L. T. Fan.

Erickson, L. E., "Management of Optimum Water Quality in a Stream," Water Research, 5, pp. 1005-1021, 1971. With L. T. Fan, and R. S. Nadkarni.

Erickson, L. E., "Dispersion Model for a Stream with Several Waste Inputs and Water Intakes," Water Resources Bulletin, Journal of the American Water Resources Association, 7(6), pp. 1210-1220, December, 1971. With L. T. Fan, and Rekha S. Nadkarni.

Erickson, L. E., "Growth Models of Cultures with Two Liquid Phases. V. Substrate Dissolved in Dispersed Phase -- Experimental Observations," Biotechnology and Bioengineering, XIII, pp. 241-256, 1971. With A. Prokop, and O. Paredes-Lopez.

Erickson, L. E., "The Reversed Two-environment Model of Micromixing and Growth Processes," J. Appl. Chem. Biotechnol., 21, pp. 307-312, October, 1971. With B. I. Tsai, L. T. Fan, and M. S. K. Chen.

Erickson, L. E., "On the Merits of Partial Fluid Mixing in the Biochemical Reactor System," Presented at the 21st C.S.Ch.E. Chemical Engineering Conference, Montreal, Quebec, Canada, October 12-15, 1971. With Gilbert K. C. Chen, and L. T. Fan.

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Erickson, L. E., "Efficiency and utility of collocation methods in solving the performance equations of flow chemical reactors with axial dispersion," Chemical Engineering Science, 26, pp. 379-387, 1971. With L. T. Fan, and G. K. C. Chen.

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Erickson, L. E., "Optimization of a Multistage Reverse Osmosis Desalination System Based on the Plug Flow Model for the Bulk Flow in the Membrane Unit," Report #27, Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, May, 1971.

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Erickson, L. E., "Methods of Optimization -- Volume 2 - Equality Constraints and Optimization," Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, August, 1971. With L. T. Fan, and C. L. Hwang.

Erickson, L. E., 'Methods of Optimization -- Volume 3 - Search Techniques," Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, October, 1971. With L. T. Fan, and C. L. Hwang.

Erickson, L. E., "Methods of Optimization -- Appendix 1 - Determinant and Matrix," Institute for Systems Design and Optimization, Kansas State University, Manhattan, Kansas, October, 1971. With L. T. Fan, and C. L. Hwang.

Kyle, B. G., "Evaluation of Activity Coefficients from Ternary Liquid-Liquid Equilibria," I & EC Process Design and Development, 9(2), pp. 244-247, April, 1970. With David S. Joy.

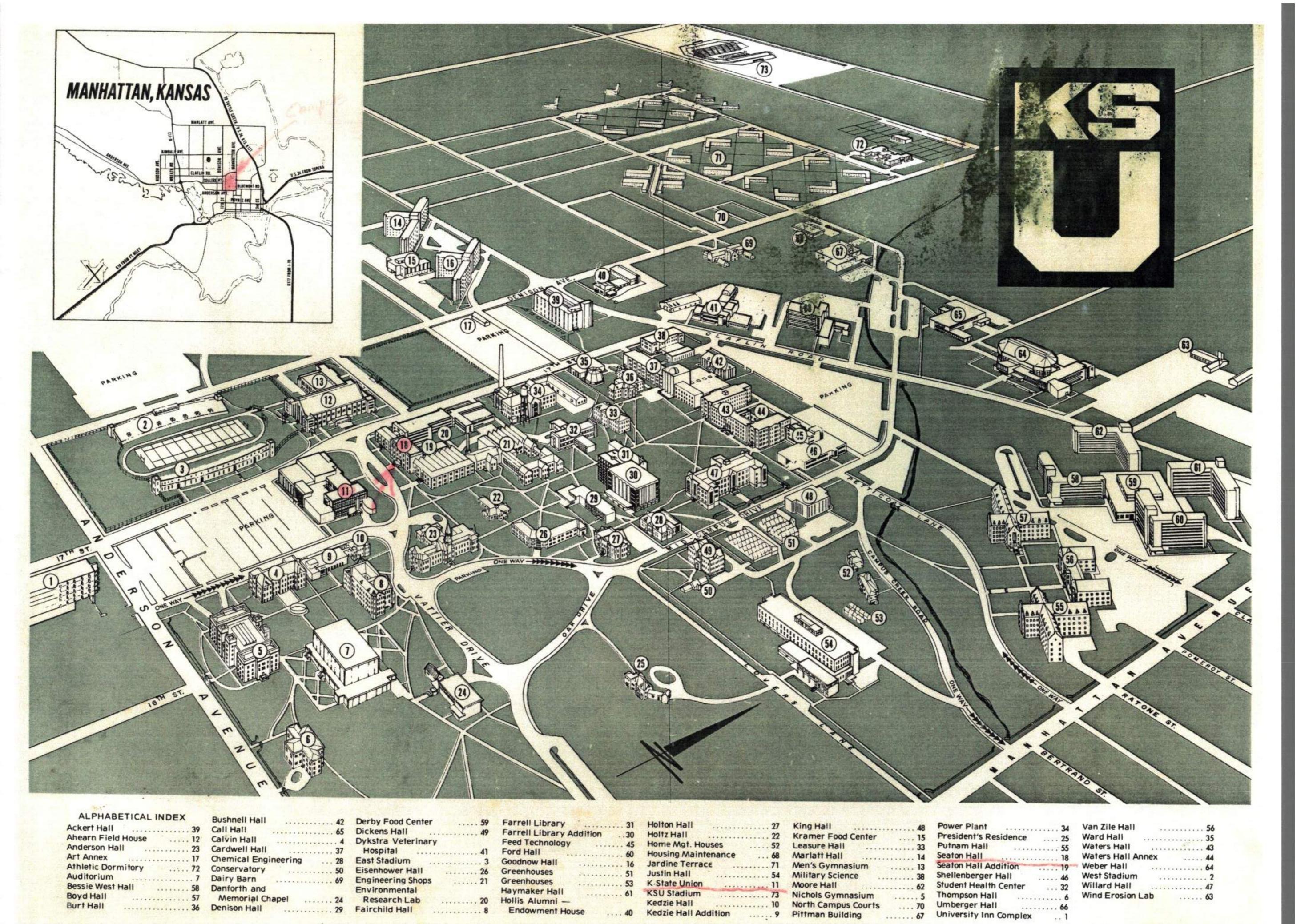
Matthews, J. C., "Catalyst Activity and Performance of Stability-Limited Fixed-Bed Reactors," I & EC Process Design and Development, 10(4), pp. 483-489, October, 1971. With K. F. Williams.

## For more information contact:

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Dr. Benjamin G. Kyle, Chairman Chemical Engineering Graduate Committee

Telephone: (913) 532-5584





## KANSAS STATE UNIVERSITY

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Department of Industrial Engineering Engineering Shops Building Manhattan, Kansas 66506 Phone: 913 532-5606

May 24, 1973

Executive Council
Tau Beta Pi Association
University of Tennessee
Knoxville, Tennessee

Gentlemen:

Under separate cover we are sending our Tau Beta Pi Petition.

We will send our KSU General Catalogs on June 12. We are sorry for this delay, but the catalogs will not be available before this time.

Sincerely,

Frank A. Tillman, Ph.D.

French Gellman

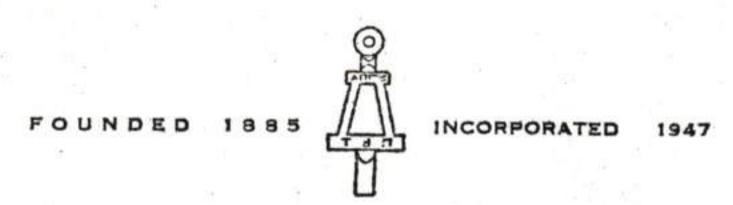
Faculty Advisor Tau Beta Gamma

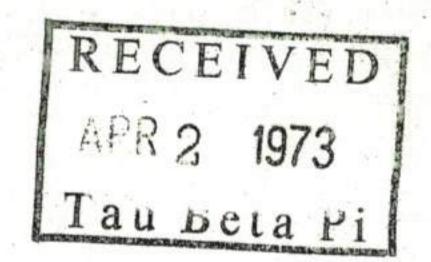
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# THE TAU BETA PI ASSOCIATION





NATIONAL ENGINEERING HONOR SOCIETY
MEMBER OF ASSOCIATION OF COLLEGE HONOR SOCIETIES

KANSAS ALPHA CHAPTER
THE UNIVERSITY OF KANSAS
LAWRENCE, KANSAS 66044

March 26, 1973

Mr. John H. Meiners
President, Tau Beta Gamma
c/o Dr. F. A. Tillman
Dept. of Industrial Engineering
Kansas State University
Manhattan, Kansas 66506

Dear John,

As representatives of Kansas Alpha on the inspection tour of your campus, we gladly express our enthusiastic support of Tau Beta Gamma's petition to establish a chapter of Tau Beta Pi at Kansas State University. We believe that you have many very fine engineering programs at K-State and a competent faculty to complement them. The close student-faculty relationship at your school is highly commendable and the interest shown by both groups will no doubt be a real asset in the continued successful operation of your chapter.

We strongly encourage the 1973 Convention to approve Tau Beta Gamma's petition and wish you the best of luck in Florida this fall.

Sincerely,

David St. Stalter

David W. Walter

President, Kansas Alpha

Searce Mu Forman Prof. George W. Forman Advisor, Kansas Alpha

David M. Suptic

Member, Kansas Alpha

Coby for Robert Megal)

## THE TAU BETA PI ASSOCIATION

NATIONAL ENGINEERING HONOR SOCIETY MEMBER OF ASSOCIATION OF COLLEGE HONOR SOCIETIES

OUNDED 1885

INCORPORATED 1947

P. O. BOX 8840, UNIVERSITY STATION KNOXVILLE, TENNESSEE 37916 TELEPHONE: 615/546-4578

ROBERT H. NAGEL

March 28, 1973

- Mr. Ronald L. Remke and Dean E. W. Kopp -- Tau Beta Phi, University of South Florida
- Mr. John G. Meiners and Dr. F. A. Tillman -- Tau Beta Gamma, Kansas State University
- Mr. Gary J. Rafferty and Father R. J. Arenz, S.J. -- Lambda Epsilon, Loyola University of Los Angeles
- Mr. James B. Wesman and Professor Henri Feiner -- Nu Iota Tau, Northrop Institute of Technology

#### Gentlemen:

The Executive Council of Tau Beta Pi has accepted and approved the favorable reports of the inspection committees which visited your institutions recently. You now have full approval to proceed with the final steps in our petitioning process.

Please send me, by about June 1, 200 copies of your society's final petition pamphlet and 200 copies of your school's most recent catalog. I shall distribute them during the summer to our 1973 Convention delegates. Also, ask your representatives to bring about 25 additional pamphlets and catalogs with them to the Convention next fall, to replace lost copies.

The Tau Beta Pi Convention will be held in Gainesville, Florida October 25-27, 1973. Your group must send at least one student and at least one faculty member as your official representatives. Enclosed is a report form for you to tell me who your representatives will be. Please complete the form and return it to me soon so that I may keep your people informed of our Convention plans and activities.

Your representatives will meet with the Convention Committee on Petitions on Thursday evening, October 25, in Gainesville. They should be prepared to answer questions about your society, your school, and your operations and projects. I shall give your representatives full details about their meeting with the committee when that committee is appointed during the coming summer.

Your representatives will also learn a great deal about Tau Beta Pi by participating fully in the Convention program. They will be afforded the same room and meal rates as all of our delegates and officers, and they will

take part in the interesting and informative discussions. I'm sure it will be an experience they will value and enjoy.

If you have any questions about our procedures or the preparation of your final petition, don't hesitate to ask me.

I enjoyed our visit with your group and I look forward to further happy contacts with you.

Sincerely yours,

Robert H. Nagel

RHN/et

Enclosure

THE TAU BETA PI ASSOCIATION
INCORPORATED

NATIONAL ENGINEERING HONOR SOCIETY
MEMBER OF ASSOCIATION OF COLLEGE HONOR SOCIETIES

FOUNDED 1885 INCORPORATED 1947

P. O. BOX 8840, UNIVERSITY STATION
KNOXVILLE, TENNESSEE 37916
TELEPHONE: 615/546-4578

SECRETARY-TREASURER ROBERT H. NAGEL

March 15, 1973

Members of the Kansas State University Inspection Committee

Gentlemen:

Enclosed is a copy of our report to the Executive Council on the Kansas State University inspection visit on February 26. Assuming the Council's acceptance of our unanimous recommendation that a chapter be established at Kansas State University, the report, including all the individual comments of our committee members, will be given to the 1973 Convention committee on petitions when it is appointed next summer.

It is customary that final petitions for new chapters of Tau Beta Pi include brief letters of support from the chapters represented on the inspection visit. May I ask that each of your chapters -- Kansas Alpha and Kansas Beta -- prepare a letter of support and send it to the student president of Tau Beta Gamma, as follows:

Mr. John H. Meiners
President, Tau Beta Gamma
'/o Dr. F. A. Tillman
Department of Industrial Engineering
Kansas State University
Manhattan, Kansas 66506

I should like to ask that this letter be sent promptly so that the Tau Beta Gamma final petition will not be delayed in preparation.

If the report I have prepared on behalf of our group should be revised in any way -- expanded, contracted, or changed -- please let me know so that our Council and Convention can be fully and properly informed.

My special thanks to all of you for taking the time to make the K.S.U. visit and for your careful attention to this important Tau Beta Pi task. If you haven't claimed reimbursement from me for your inspection visit expenses, please hurry before the bank closes!

Very best regards.

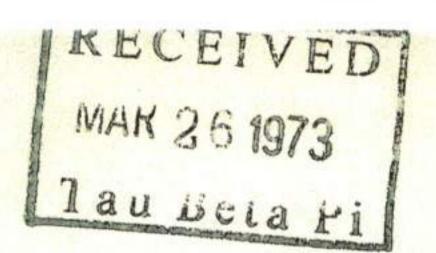
Sincerely yours,

Robert H. Nagel

RHN/sf



#### KANSAS STATE UNIVERSITY



Office of the Dean College of Engineering Seaton Hall Manhattan, Kansas 66506 Phone: 913 532-5590

March 21, 1973

Robert H. Nagel
The Tau Beta Pi Association
P. O. Box 8840
University Station
Knoxville TN 37916

Dear Bob:

Thank you for your letter of March 15 and the attached report. I have no changes to suggest. I would like to express my personal appreciation for your visit to Kansas State. I know that it was interesting and profitable for us and we look forward to filing our final petitition on or before June 1. I hope that the committee's recommendation will be accepted by the association and that we will have a chapter of Tau Beta Pi in the near future.

Sincerely yours,

Ralph G. Nevins
Dean of Engineering

RGN/jlg

cc: Dr. Tillman

A.S.U March 15, 1973 Mr. John H. Meiners Dr. Frank A. Tillman Dean Ralph G. Nevins Gentlemen: Our inspection committee to Tau Beta Gamma and Kansas State University has unanimously recommended that atchapter of Tau Beta Pi be established at your institution. A copy of our report to the Executive Council is enclosed. If our report should be revised in any way -- expanded, contracted, or changed -- please tell me so that our Council and Convention can be fully and properly informed. I have asked the officers of each of the chapters represented on the inspection visit to send you brief letters of support which can be incorporated in your final petition pamphlet. You should now proceed to produce your final petition, with the modifications and additions we have discussed, in 225 copies. Please send me 200 copies of the final petition by June 1, with 200 copies of your University catalog. I shall distribute them to all of the collegiate and alumnus chapter delegates who will come to our 1973 Convention in Gainesville, Florida. If you have any further questions about the final petition, don't hesitate to ask me. I shall keep you informed of all of our Convention plans and will askyyou a little later this spring to name your official student and faculty representatives so that I can give them full instructional details over the summer and early fall. The Convention dates are October 25-27. All of our inspection group thank you for your hospitable treatment of us on February 26. We are grateful for your interest in Tau Beta Pi. Sincerely yours, Robert H. Nagel RHN/sf CC: MPP

Members of the Kansas State University Inspection Committee

Gentlemen:

Enclosed is a copy of our report to the Executive Council on the Kansas State University inspection visit on February 26. Assuming the Council's acceptance of our unanimous recommendation that a chapter be established at Kansas State University, the report, including all the individual comments of our committee members, will be given to the 1973 Convention committee on petitions when it is appointed next summer.

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Very best regards.

Sincerely yours,

RHN/sf

Robert H. Nagel



## COLLEGE OF ENGINEERING

#### AGRICULTURAL ENGINEERING

FRESHMAN			No leaven the second
Fail Semester			
English	229	100	Course Semester Hours English Composition I
Chemistry	221	210	Chemistry I 5
Mathematics Mech. Engg.	245 560	220	Anal. Geometry & Calculus 1 4
Agr. Engg.	505	160	Graph. Comm., Anal. & Des. 1 . 2 Ag. Engg. Concepts
Physical Education	-	110	Physical Education 0
Gen. Engg.	500	110	Engineering Lecture 0
		-	16
Spring Semester			Course Semester Hours
English Chemistry	229	120	English Composition II 3
Mathematics	221	230	Anal. Geometry & Calculus II . 4
Economics	225	110	Economics I 3
Physical Education			Humanities or Soc. Sci. Elect. 3 Physical Education 0
			16
SOPHOMORE			
Fall Semester		STATE	
Mathematics	245	222	Course Semester Hours Anal. Geometry & Calculus III 4
Physics	265	310	Engineering Physics 1 5
Biology Appl. Mech.	215 510	198	Principles of Biology 4 Statics
The state of the s			
Spring Semester			16
			Course Semester Hours
Mathematics Physics	245	240 311	Series, & Diff. Equations 4 Engineering Physics II 5
Agr. Engg.	505	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Biol. Materials & Machine
Ind. Engg.	550	372	Functions in Ag
Appl. Mech.	510	412	Dynamics 3
			17
JUNIOR			
Fall Semester			
Agr. Engg.	505	410	Course Semester Hours Environmental Analysis for Plant
	A.		and Animal Systems 3
Mech. Engg. Elec. Engg.	10000	413	Thermodynamics I 3 Circuit Theory I 3
Speech	281	105	Oral Communications 1 2
Appl. Mech.	510	415	Mechanics of Materials 3 Humanities or Soc. Sci. Elect.* 3
and the safety at			。 一种的一种的一种,但是一种的一种的一种,但是一种的一种的一种的一种的一种的一种的一种的一种的一种的一种的一种的一种的一种的一
			The Francisco Court Court IV
Spring Somester			Course Semester Hours
Appl. Mech.	510		Mech. of Materials Lab 1
Agr. Engg. Agr. Bigg.	505 505		Anal. of Ag. Structures 3 Energy Use & Control in
A STATE OF THE STA		14	Ag. Systems 1 3
Appl. Mech.	510	4/1	Fluid Mechanics
Ovil Engg.	525	422	Soll Mechanics or
Agronomy	015	660	Soil Physics
			16
SENIOR			
Fall Semester	SHIP		
Agr. Engg.	ENE	e20	Course Semester Hours
Agr. Brigg.	505 505		Soil and Water Engg
		- 4-15	Humanities or Soc. Sci. Elect." 3
			Technical Elective 7
			16
Spring Somester			Course Semester Hours
Agr. Engg.	505	505	Energy Use and Control in
Agr. Bagg.	505	581	Ag. Systems II
			Humanities or Soc. Sci. Elect." 3
			Technical Elective 9

Number of hours required for graduation 130

#### AREAS OF SPECIALIZATION:

AGRICULTURAL POWER AND MACHINERY
AGRICULTURAL STRUCTURES AND ENVIRONMENT
AGRICULTURAL PRODUCTS PROCESSING
SOIL AND WATER ENGINEERING
FOOD ENGINEERING

#### CHEMICAL ENGINEERING

		100	
FRESHMAN			
Fall Semester			
English	229	100	Course Sem. Hrs. English Composition I 3
Chemistry	221	210	Chemistry I 5
Mathematics Economics	245	110	Anal. Geometry & Calculus I 4
Speech	281	105	Oral Communication 1 2
Physical Education			Physical Education 0
General Engineering	500	110	Engineering Lectures 0
			17
Spring Semester			
	-	2201	Course Sem. Hrs.
English Chemistry	229	120	English Composition II 3
Chemistry	221	271	Chemistry II
Mathematics	245	221	Anal. Geometry & Calculus II . 4
Physical Education			Elective* 3
The state of the s	520	115	Physical Education 0 Engineering Lectures 0
CORNOLOGE	12.88		17
SOPHOMORE			
Fall Semester			Course Sem. Hrs.
Mathematics	245	222	Anal. Geometry & Calculus III 4
Physics	265	310	Engineering Physics I 5
Chemistry	221	431	Organic Chemistry I
	221	432	Organic Chemistry I Lab 2 Elective
Chem. Engg.	520	115	Engineering Assembly 0
Spring Semester			. 17
			Course Sem. Hrs.
Mathematics	245	240	Series & Diff. Equations 4
Physics Chemistry	265	311 450	Engineering Physics II 5
Chem. Engg.	520	214	Organic Chemistry II
Chem. Engg.	520	216	Chem Engg. Comp. Tech 1
Chem. Engg.	520	115	Engineering Assembly 0
			16
JUNIOR			
Fall Semester			
Chemistry	-		Course Sem. Hrs.
Chemistry	221	585 586	Physical Chemistry I 3 Physical Chem. I Lab 2
Chem. Engg.	520	415	Ch. E. Thermo 5
Chem. Engg.	-	***	Elective 6
Oitin, Digg.	520	113	Engineering Assembly 0
			16
Spring Semester			
	221	200	Course Sem. Hrs.
Chemistry Chem. Engg.	221 520	595 430	Physical Chemistry II 3
Chemistry	Carlotte Carlotte	430	Physical Chemistry II
Chemistry Chem. Engg. Chem. Engg.	520 520	430	Physical Chemistry II
Chemistry Chem. Engg.	520 520	430	Physical Chemistry II
Chemistry Chem. Engg. Chem. Engg.	520 520	430	Physical Chemistry II
Chemistry Chem. Engg. Chem. Engg. Chem. Engg.	520 520	430	Physical Chemistry II
Chemistry Chem. Engg. Chem. Engg.	520 520	430	Physical Chemistry II
Chemistry Chem. Engg. Chem. Engg. Chem. Engg. SENIOR Fall Semester	520 520 520	430 422 115	Physical Chemistry II
Chemistry Chem. Engg. Chem. Engg. Chem. Engg. SENIOR Fall Semester Chem. Engg. Chem. Engg. Chem. Engg.	520 520 520 520 520 520	430 422 115 432 520	Physical Chemistry II 3 Transport Phenomena 5 Chem. Engg. Lab. 1 2 Elective 6 Engineering Assembly 0  To Sem. Hrs. Chem. Engg. Lab. II 2 Process Anal. & Design 5
Chemistry Chem. Engg. Chem. Engg. Chem. Engg. SENIOR Fall Semester Chem. Engg.	520 520 520 520	430 422 115	Physical Chemistry II 3 Transport Phenomena 5 Chem. Engg. Lab. 1 2 Elective 6 Engineering Assembly 0  Toberse Sem. Hrs. Chem. Engg. Lab. II 2 Process Anal. & Design 5 Process Optimization 3
Chemistry Chem. Engg. Chem. Engg. Chem. Engg. SENIOR Fall Semester Chem. Engg. Chem. Engg. Chem. Engg.	520 520 520 520 520 520	430 422 115 432 530 530	Physical Chemistry II 3 Transport Phenomena 5 Chem. Engg. Lab. 1 2 Elective 6 Engineering Assembly 0  To Sem. Hrs. Chem. Engg. Lab. II 2 Process Anal. & Design 5 Process Optimization 3 Elective 6
Chemistry Chem. Engg. Chem. Engg. Chem. Engg. SENIOR Fall Semester Ohem. Engg. Chem. Engg. Chem. Engg. Chem. Engg. Chem. Engg.	520 520 520 520 520 520 520	430 422 115 432 530 530	Physical Chemistry II 3 Transport Phenomena 5 Chem. Engg. Lab. 1 2 Elective 6 Engineering Assembly 0  Toberse Sem. Hrs. Chem. Engg. Lab. II 2 Process Anal. & Design 5 Process Optimization 3
Chemistry Chem. Engg. Chem. Engg. Chem. Engg. SENIOR Fall Semester  Chem. Engg. Chem. Engg. Chem. Engg. Chem. Engg. Chem. Engg. Chem. Engg.	520 520 520 520 520 520 520	430 422 115 432 530 530	Physical Chemistry II 3 Transport Phenomena 5 Chem. Engg. Lab. 1 2 Elective 6 Engineering Assembly 0  To Sem. Hrs. Chem. Engg. Lab. II 2 Process Anal. & Design 5 Process Optimization 3 Elective 6
Chemistry Chem. Engg. Chem. Engg. Chem. Engg. SENIOR Fall Semester Ohem. Engg. Chem. Engg. Chem. Engg. Chem. Engg. Chem. Engg.	520 520 520 520 520 520 520	430 422 115 432 530 530	Physical Chemistry II 3 Transport Phenomena 5 Chem. Engg. Lab. 1 2 Elective 6 Engineering Assembly 0  To 16  Course Sem. Hrs. Chem. Engg. Lab. II 2 Process Anal. & Design 5 Process Optimization 3 Elective 6 Engineering Assembly 0
Chemistry Chem. Engg. Chem. Engg. Chem. Engg. SENIOR Fall Semester  Chem. Engg. Chem. Engg. Chem. Engg. Chem. Engg. Chem. Engg. Chem. Engg.	520 520 520 520 520 520 520	430 422 115 432 520 530 115	Physical Chemistry II 3 Transport Phenomena 5 Chem. Engg. Lab. 1 2 Elective 6 Engineering Assembly 0  Course Sem. Hrs. Chem. Engg. Lab. II 2 Process Anal. & Design 5 Process Optimization 3 Elective 6 Engineering Assembly 0
Chemistry Chem. Engg. Chem. Engg. Chem. Engg. SENIOR Fall Semester  Chem. Engg.	520 520 520 520 520 520 520	430 422 115 432 520 530 115	Physical Chemistry II 3 Transport Phenomena 5 Chem. Engg. Lab. 1 2 Elective 6 Engineering Assembly 0  To 16  Course Sem. Hrs. Chem. Engg. Lab. II 2 Process Anal. & Design 5 Process Optimization 3 Elective 6 Engineering Assembly 0  To 16  Course Sem. Hrs. Chem. Engg. Lab. III 2 Chem. Engg. Lab. III 2 Chem. Engg. Lab. III 5 Chem. Engg. Lab. III 6 Chem. Engg. Lab. III 6 Chem. Engg. Lab. III 7 Chem. Engg. Lab. III
Chemistry Chem. Engg. Chem. Engg. Chem. Engg. SENIOR Fall Semester Chem. Engg.	520 520 520 520 520 520 520	430 422 115 432 520 530 115	Physical Chemistry II 3 Transport Phenomena 5 Chem. Engg. Lab. 1 2 Elective 6 Engineering Assembly 0  To 16  Course Sem. Hrs. Chem. Engg. Lab. II 2 Process Anal. & Design 5 Process Optimization 3 Elective 6 Engineering Assembly 0  Course Sem. Hrs. Chem. Engg. Lab. III 2 Ch. E. Systems Design 5 Elective 9
Chemistry Chem. Engg. Chem. Engg. Chem. Engg. SENIOR Fall Semester Ohem. Engg. Chem. Engg.	520 520 520 520 520 520	430 422 115 432 520 530 115	Physical Chemistry II 3 Transport Phenomena 5 Chem. Engg. Lab. 1 2 Elective 6 Engineering Assembly 0  To 16  Course Sem. Hrs. Chem. Engg. Lab. II 2 Process Anal. & Design 5 Process Optimization 3 Elective 6 Engineering Assembly 0  Course Sem. Hrs. Chem. Engg. Lab. III 2 Chem. Engg. Lab. III 2 Chem. Engg. Lab. III 5
Chemistry Chem. Engg. Chem. Engg. Chem. Engg. SENIOR Fall Semester Chem. Engg.	520 520 520 520 520 520 520	430 422 115 432 520 530 115	Physical Chemistry II 3 Transport Phenomena 5 Chem. Engg. Lab. 1 2 Elective 6 Engineering Assembly 0  To 16  Course Sem. Hrs. Chem. Engg. Lab. II 2 Process Anal. & Design 5 Process Optimization 3 Elective 6 Engineering Assembly 0  Course Sem. Hrs. Chem. Engg. Lab. III 2 Ch. E. Systems Design 5 Elective 9
Chem. Engg. Chem. Engg. Chem. Engg. Chem. Engg. SENIOR Fall Semester  Chem. Engg.	520 520 520 520 520 520 520 520	430 422 115 432 520 530 115	Physical Chemistry II 3 Transport Phenomena 5 Chem. Engg. Lab. 1 2 Elective 6 Engineering Assembly 0  Course Sem. Hrs. Chem. Engg. Lab. II 2 Process Anal. & Design 5 Process Optimization 3 Elective 6 Engineering Assembly 0  Course Sem. Hrs. Chem. Engg. Lab. III 2 Ch. E. Systems Design 5 Elective 9 Engineering Assembly 0

#### AREAS OF SPECIALIZATION:

CHEMICAL PROCESSING
PLASTICS
BIO-ENGINEERING
PHARMACEUTICALS
PETROLEUM REFINING
FOOD PROCESSING
SOLID WASTE REUSE

#### CIVIL ENGINEERING

FRESHMAN			
Fall Semester			Course Semester Hours
Mathematics	245		Anal. Geometry & Calculus 1 4
Chemistry	221	210	Chemistry 1 5
English	229	100	English Composition I 3 Engineering Science Elective 2
Mech. Engg.	560	212	Graph. Comm. Anal. & Des. 1 . 2
Physical Education	1		Physical Education 0
Gen. Engg.	500	110	Engineering Lecture 0
Spring Semester			16
Spring Semester			Course Semester Hours
Mathematics	245	221	Anal. Geometry & Calculus II . 4
Chemistry English	221	230	Chemistry II
English	229	120	English Composition II 3 Engineering Science Elective 2
Economics	225	110	Economics I 3
Physical Education Civil Engg.	525	110	Physical Education 0
	323	110	Civil Engineering Lecture 0
SOPHOMORE			15
Fall Semester			
	-	-	Course Semester Hours
Mathematics Physics	245	310	Anal. Geometry & Calculus III 4
Appl. Mech.	510	305	Engineering Physics I 5 Statics 3
Speech	281	105	Oral Communications 1 2
Civil Engg.	525 525	212	Elementary Surveying Engg 3 Engineering Assembly 0
			Linguistering Assertiory 0
			17
Spring Semester			
	95	2	Course Semester Hours
Mathematics Physics	245		Series & Diff. Equations 4
Appl. Mech.	265 510		Engineering Physics II 5 Mechanics of Materials 3
Chemistry	221	250	Chemistry II Laboratory 2
Civil Engg.	525 525	214	Route Surveying 3
Civil Eligg.	323	113	Engineering Assembly 0
JUNIOR			17
Fall Semester			4 41 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Civil Engg.	525	431	Course Semester Hours Analysis of Statically
·	-		Determinate Structures 3
Appl. Mech.	510	412	Dynamics 3
Mech. Engg. Geology	560 234	413	Thermodynamics 1 3 Physical Geology 4
			Humanities or Soc. Sci. Elect." 3
Appl. Mech. Civil Engg.	2000	418	Mech. of Materials Lab
Civil Bigg.	-		
Spring Semester			17
			Course Semester Hours
Civil Engg.	525	432	Analysis of Statically Indeterminate Structures 3
Appl. Mech.	The second second	471	Fluid Mechanics 3
Civil Engg.	525	463	Sanitary Engg. Fund 3
Civil City.	325	422	Soil Mechanics I
Civil Engg.	525	115	Engineering Assembly 0
· ·			
SENIOR SENIOR			16
Fall Semester			Course Semester Hours
Civil Engg.		442	Structural Engg. in Steel 3
Civil Engg.	525	465	Sanitary Engg. Design 3
Civil Engg.	525	451	Senior Design Elective 3 Hydrology 2
	20/10		Humanities or Soc. Sci. Elect.". 6
Civil Engg.	525	115	Engineering Assembly 0
	The		Torrishment agential Ty
CHI MAG			
Spring Semester			Course Semester Hours
Civil Engg.	525	444	Course Semester Hours Structural Engg. in Concrete 3
Civil Engg.	525	452	Hydraulic Engineering 3
Civil Engg.	525 525	471	Transportation Engineering 3 Foundation Engineering 3
			Humanities or Soc. Sci. Elect. 5
Civil Engg.	525	115	Engineering Assembly 0
			17
	-	A PORT	

#### AREAS OF SPECIALIZATION:

Number of hours required for graduation 132

STRUCTURAL ENGINEERING
FOUNDATIONS ENGINEERING
TRANSPORTATION ENGINEERING
SURVEYING AND MAPPING
HYDRAULIC ENGINEERING
SANITARY ENGINEERING
URBAN AND REGIONAL ENGINEERING

### ELECTRICAL ENGINEERING

FRESHMAN Fall Semester			
English Chemistry Mathematics Speech Mech. Engg. Physical Education	229 221 245 281 560	100 210 220 105 212	Course Semester Hours English Composition I
Spring Semester			
English Chemistry Mathematics Gen. Engg. Computer Science Physical Education	229 221 245 500 286	120 230 221 160 315	Course Semester Hours English Composition II
Maria as will be a			15
SOPHOMORE Fall Semester			
Physics Mathematics Appl. Mech. Elec. Engg. Economics	265 245 510 530 225	310 222 305 355 110	Course Semester Hours Engineering Physics I
Spring Semester			
Physics Mathematics Appl. Mech. Elec. Engg.	265 245 510 530	412	Course Semester Hours Engineering Physics II
JUNIOR Fall Semester			
Elec. Engg. Elec. Engg. Elec. Engg. Elec. Engg.	530 530	404 497 415 431	Course Semester Hours Circuit Theory II
Spring Semester			10
Elec. Engg. Elec. Engg. Elec. Engg.	530	416 501 432	Electronics II
SENIOR			17
Fall Semester		1	Course Semester Hours
Mech. Engg. Elec. Engg.	100	413 510	Thermodynamics i
Spring Semester			15
Elec. Engg.	530	530	Course Semester Hours  E. E. Seminar

Number of hours required for graduation 132

#### AREAS OF SPECIALIZATION:

CIRCUITS AND ELECTRONICS
ELECTRON DEVICES AND MATERIALS
ELECTROMAGNETICS AND COMMUNICATION
ELECTRICAL POWER
COMPUTERS AND ALLIED EQUIPMENT
INSTRUMENTATION AND CONTROL SYSTEMS
BIO-ENGINEERING

#### INDUSTRIAL ENGINEERING

FRESHMAN Fall Semester			
English		100	Course Semester Hours English Composition 1 3
Mathematics Chemistry	221	210	Anal. Geometry & Calculus I 4 Chemistry I
Economics Gen. Engg.	225 500	110	Engineering Concepts
Physical Education	1776		Physical Education 0
Gen. Engg	500	110	Engineering Lectures 0
Spring Semester			Course Semester Hours
English Mathematics	229	120	English Composition II 3
Chemistry	221	230	Anal. Geometry & Calculus II . 4 Chemistry II
Mech. Engg. Ind. Engg.	560 550	212	Graph. Comm, Anal. & Desgn 1 2 Intro. to Ind. E
Physical Education	(17 PM)		Humanities or Soc. Sci. Elect 3 Physical Education 0
Ind. Engg.	550	115	Engineering Assembly 0
			17
SOPHOMORE Fall Semester			
Physics	265	310	Course Semester Hours Engineering Physics I 5
Mathematics Bus. Ad.	245 305	222	Anal. Geometry & Calculus III 4 Fund. of Accounting
Ind. Engg.	550	341	Production Processes 3
Ind. Engg. Ind. Engg.	550 550	372 115	Computers & Data Processing 2 Engineering Assembly 0
			10
Spring Semester			Course Semester Hours
Physics Mathematics	265	311	Engineering Physics II 5
Appl. Mech.	245 510	240 305	Series & Diff. Equations 4 Statics
Ind. Engg.	550	352	Tool Engineering
Ind. Engg.	550	115	Engineering Assembly 0
JUNIOR			
Fall Semester			
Mech. Engg.	560	413	Course Semester Hours Thermodynamics I
Statistics Ind. Engo.	285 550	410 358	Intro. Prob. & Stat. 1
Ind. Engg.	550 550	351	Engineering Materials Lab 1
Ind. Engg. Appl. Mech.	510	412	Work Design 3 Dynamics 3
Ind. Engg.	550	115	Engineering Assembly 0
Spring Semester			Course Semester Hours
Appl. Mech.	510	415	Mechanics of Materials 3
Elec. Engg. Ind. Engg.	530 550	403	Elect. Circuits and Control 4 E. Reliability & Qual. Assur. 1 . 3
Ind. Engg.	550 550	481 530	Industrial Plant Studies 0 Ind. Project Eval 3
Ind. Engg.	550	401	Industrial Management 3
Ind. Engg.	550	115	Engineering Assembly 0
SENIOR			16
Fall Semester			
Ind. Engg.	550	553	Prod. Plan. & Invent. Control . 3
Ind. Engg. Ind. Engg.	550 550	575 571	Quant. Tech. in Ind. Engg 3 Intro. to Operations Research I 3
Ind. Engo.	550	502	Ind. Management II 2
ind. Engg.	550	115	Soc. Sci. or Humanities Elect. 6 Engineering Assembly 0
A CONTRACTOR OF THE PARTY OF TH	Way.		17
Spring Semester			
	***	425	Course Semester Hours
Ind. Engg.	550 550	625 554	Man-Environment Systems 3 Ind. Facilities Layout & Des 3
Ind. Engg.	550 550	572 573	Intro. to Oper. Research II 3 Industrial Simulation 3
	1 42 90-1		Soc. Sci. or Humanities Elect." 3
Ind. Engg.	550	115	Engineering Assembly 0
			15

Number of hours required for graduation 133

#### AREAS OF SPECIALIZATION:

ENGINEERING MANAGEMENT
JOB EVALUATION & INDUSTRIAL RELATIONS
HUMAN FACTORS ENGINEERING
QUALITY AND RELIABILITY CONTROL
PLANT PLANNING AND LAYOUT
PROCESS PLANNING AND DESIGN
PRODUCTION SCHEDULING
INVENTORY CONTROL
OPERATIONS RESEARCH

#### MECHANICAL ENGINEERING

FRESHMAN Fall Semester			
ACCEPTED TO			Course Sem. Hrs.
English Chemistry	229	100	Engish Composition I 3 Chemistry I 5
Speech	281	105	Oral Communication I 2
Mathematics Gen. Engg.	245 500	220 160	Anal Geometry & Calculus 1 4 Engineering Concepts 2
Physical Education	-		Physical Education 0
Gen. Engg.	500	110	Engineering Lectures 0
ipring Semester			16
English	229	120	Course Sem. Hrs. English Composition II 3
Chemistry Mech. Engg.	221 560	230	Graph, Comm. Anal. & Des. 1 . 2
Mathematics	245	221	Anal. Geometry & Calculus II . 4
Physical Education			Hum. or Soc. Sci. El.* 3 Physical Education 0
Mech. Engg.	560	115	Engineering Assembly 0
SOPHOMORE			15
Fall Semester			Course Sem. Hrs.
Physics	265	310	Engineering Physics I 5
Mathematics Economics	245	110	Anal. Geometry & Calucius III 4 Economics I
Mech. Engg.	560	217	Graph. Comm. Anal. & Des. II . 3
Ind. Engg. Mech. Engg.	550	341	Production Processes 3 Engineering Assembly
		+	10
Spring Semester	<b>新</b>		
Physics	265	311	Engineering Physics II
Mathematics	245	240	Series & Diff. Equations
Appl. Mech. Ind. Engg.	510 550	305 350	Statics Engg. Materials
	E40	116	Hum. or Soc. Sci. El.*
Mech. Engg.	200	115	Engineering Assembly
JUNIOR	City		
Fall Semester			Course Sem. Hrs
Mech. Engg.	560 530		Thermodynamics I
Elec. Engg. Ind. Engg.	550	351	Engg. Materials Lab
Appl. Mech.	510	412	Dynamics Mech. of Materials
Appl. Mech.	510		Hum. or Soc. Sci. El."
Mech. Engg.	560	1115	Engineering Assembly
			1
Spring Semester			Course Sem. Hrs
Mech. Engg. Elec. Engg.	560	and the second second	Thermodynamics II
Ind. Engg.	550	372	Comp. and Data Proc
Appl. Mech. Physics	510 265		Fluid Mechanics
Nucl. Engg.	580		Intro. To Nuclear Engg
Mech. Engg.	540	115	Hum. or Soc. Sci. El.* Engineering Assembly
0.00			
SENIOR			
Fall Semester			Course Sem. Hrs.
Mech. Engg.		452	Machine Design I
Mech. Engg.	560	521 535	Heat Transfer
Mech. Engg. Mech. Engg.	560	The second secon	Engg. Economics
A STATE OF LODI	540	115	Technical Elective"
Mech. Engg.	300	113	Engineering Assembly
Spring Semester			
	540	453	Course Sem. Hrs Mech. Engg. Des. Lab.
Mech. Engg. Mech. Engg.	560 560	551	Machine Desing II
Mech. Engg.	560	583	Mech. Engg. Lab. II
Mech. Engg. Mech. Engg.	560 560		Environmental Engg. 1
The same said	TE	7	Hum. or Soc. Sci. El."
Mech. Engg.	560	115	Technical Elective*
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#### AREAS OF SPECIALIZATION:

THERMAL ENERGY PROCESSES
FLUID SYSTEMS
MECHANICAL SYSTEMS
ENGINES AND MOTORS
TRANSPORTATION EQUIPMENT
INSTRUMENTATION & CONTROL SYSTEMS
BIO-ENVIRONMENTAL ENGINEERING

#### NUCLEAR ENGINEERING

all Semester			Course Sem. Hrs.
Nucl. Engg.	580	110	N. E. Concepts 2
English Economics	229	110	English Composition 1 3 Economics 1
Chemistry	221	210	Chemistry I
Mathematics	245	220	Anal. Geometry & Calculus 1 4
Physical Education			Physical Education 0
pring Semester			Course Sem. Hrs.
Nucl. Engg. English	580 229	116 120	N. E. Seminar
Chemistry	221	230	Chemistry If3
Chemistry	221	250	Chemistry II Lab
Physics Mathematics	265	310	Engineering Physics I 5 Anal. Geometry & Calculus II . 4
Physical Education			Physical Education 0
OPHOMORE			
all Semester	33		Course Sem. Hrs.
Physics	265	311	Engineering Physics II 5
Mathematics	245	222	Anal. Geometry & Calculus III
Appl. Mech.	510	305	Statics
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pring Semester			and the state of
The second secon	4 74 74		Course Sem. Hrs.
Nucl. Engg.	500	390	Intro. N. E. Anal.
Nucl. Engg. Appl. Mech.	510	450	Elem. N. E
Elec. Engg.	530	491	Circuit Theory 1
Chem. Engg.	520	214	Intro. to Proc. Anal
			19
UNIOR all Semester			rafeline comme
	500	500	Ap. N. E. Anal.
Nucl. Engg. Nucl. Engg.	580 580	611	Rad. Appl. Engg.
Mech. Engg.	560	413	Thermodynamics I
Elec. Engg.	530	415	Technical Elective 888
			Soc. Sci. or Hum. El.*
pring Semester			And the second the
	-	-	Course Sem. Hrs.
Nucl. Engg. Nucl. Engg.	580	The second second	Nuc. React. Fund.
Appl. Mech.	510		Fluid Mechanics
THE STATE OF THE STATE OF			Soc. Sci. or Hum. El.*
			Soc. Sci. or Hum. El.
ENIOR Fall Semester			THE PERSON NAMED AND ADDRESS OF THE PERSON NAMED AND ADDRESS O
		ELLER	Course Sem. Hrs.
Nucl. Engg.	580 580	671	App. React. Theory
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SEW ST	100		Technical Elective**
			Soc. Sci. or Hum. El.*
ipring Semester			
Nucl. Engg.	580	692	Nuc. React. Tech.
Nucl. Engg.	580	695	Nuc. React. Tech. Lab
			Technical Elective* 7
			Soc. Sci. or Hum. El.*
Number of Hours Re	quire	d for I	Graduation is 130
			The second is the

#### AREAS OF SPECIALIZATION:

NUCLEAR POWER ISOTOPES APPLICATIONS
RADIATION SHIELDING
RADIATION EFFECTS ON MATERIALS
CONSTRUCTIVE USES OF NUCLEAR EXPLOSIVES

#### **Undesignated Major**

Entering freshmen who are undecided as to a major in engineering may enroll in General Engineering for one year. They will take the following program of study which is completely applicable to all engineering programs.

			Course Sem. Hrs.
English	229	100	English Composition I 3
Chemistry	221	210	Chemistry I 5
Mathematics	245	220	Anal. Geometry & Calculus 1 . 4
General Engineering	500	160	Engineering Concepts 2
			Hum. or Soc. Sci. Elect 3
Physical Education			Physical Education 0
General Engineering	500	110	Engineering Lectures 0
pring Semester			
			Course Sem. Hrs.
English	229	120	
	229	120	English Composition II 3
English	-	The second secon	English Composition II 3 Chemistry II 3
English Overnistry	221	230	English Composition II
English Onemistry Mathematics Economics	221	230 221	English Composition II 3 Chemistry II 3 Anal. Geometry & Calculus II 4 Economics I 3 Hum. or Soc. Sci. Elect. 3
English Chemistry Mathematics	221 245 225	230 221 110	English Composition II

# Information for Pre-Engineering Students Transferring to Kansas State University

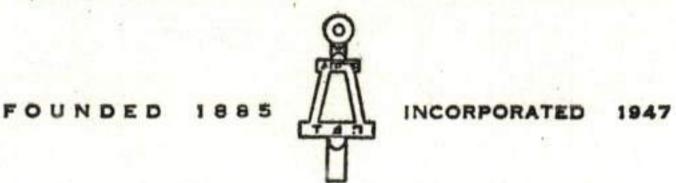
Many of the fundamental courses required for a degree in engineering may be obtained through pre-engineering programs at other four-year institutions or junior colleges. In general, two years of coursework will be transferrable. However, there are small differences among the curricula so students electing this route should work closely with their advisers and KSU to ensure a proper selection of courses. Questions should be referred to The Dean's Office, College of Engineering.

Chemistry Alathematics — (Anal. G	eom. & C	alc., D	Hf. Equ	ia.)			16
Physics							10
Statics English Composition							3
							3
Social Science & Human	ities El	ectives			Caste 193		
(courses in economics history, literature, etc.	psycho	logy.			No. of the last		15
maiory, merenore, etc.	STATE OF	*****					-
							61
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CURRICULUM	AgE	ChE	CE 2 2 2 2		IE 2	ME 2 5	THE NE
Speech Graphics Qualitative Analysis Computer Programming	AgE	ChE	CE 2 2 2 2 4		IE 2	ME 2 5	THE NE

#### THE TAU BETA PI ASSOCIATION

INCORPORATED

NATIONAL ENGINEERING HONOR SOCIETY
MEMBER OF ASSOCIATION OF COLLEGE HONOR SOCIETIES



P. O. BOX 8840, UNIVERSITY STATION KNOXVILLE, TENNESSEE 37916 TELEPHONE: 615/546-4578

SECRETARY-TREASURER ROBERT H. NAGEL

March 15, 1973

The Executive Council

#### Inspection Visit to Kansas State University

Gentlemen:

A committee of inspection, authorized by the Executive Council, visited Kansas State University on February 26, 1973. A preliminary petition from Tau Beta Gamma, local engineering honor society there, had been approved by the Council. The inspection team was composed of the following chapter representatives and national officers:

Kansas Alpha (University of Kansas)

David W. Walter, president

David M. Suptic, chapter member

Prof. George W. Forman, advisor

Kansas Beta (Wichita State University)

Dennis D. Hoover, president

Ronnie H. Metcalf, chapter member

John K. Sharp, chapter member

Dr. Edward J. Rodgers, advisor

#### National Officers

George P. Palo, President G. Ronald Ames, Director of Chapter Development Robert H. Nagel, Secretary-Treasurer

The committee gathered at 10:00 a.m. in the Big 8 Room of the K-State Union on the Kansas State University campus and was served coffee and doughnuts. John H. Meiners, president of Tau Beta Gamma, welcomed the visitors and introduced his society's officers and advisors. Dean Ralph G. Nevins described Kansas State University and its College of Engineering. Seven engineering curricula are E.C.P.D. accredited; five of them offer graduate work to the Ph.D., and agricultural engineering is under the joint jurisdiction of the Colleges of Agriculture and of Engineering. Kansas State has approximately 900 undergraduate engineering students and 150 graduate students. Total enrollment of the University is approximately 15,000. Kansas State University is the land-grant institution of the state.

Mr. Meiners stated that Tau Beta Gamma had been organized more than two years ago in order to secure a Tau Beta Pi chapter, Kansas State University has had a chapter of Sigma Tau for many years. He described the general projects

and programs of Tau Beta Gamma including a Boy Scout merit badge counseling service offered to local units of that organization.

Dr. Frank A. Tillman, faculty advisor to Tau Beta Gamma, said that he had encouraged the best engineering students of Kansas State University to seek a chapter of Tau Beta Pi because it is the better known national engineering honor society.

Mr. Palo briefly described the governmental structure of Tau Beta Pi; Secretary Nagel referred to the petitioning process and said that full opportunity would be offered later in the day for Kansas State people to ask questions about Tau Beta Pi. Mr. Ames spoke briefly about the importance of chapters' conducting meaningful projects to attract appropriate attention and to fulfill its responsibilities to its institution.

From 11:00 a.m. to 12:00 m. the group was given general tours of the Kansas State University campus and surrounding areas with Tau Beta Gamma members and faculty as guides.

Lunch was served in a private room of the K-State Union with many Tau Beta Gamma members and engineering faculty present. Dr. J. A. McCain, president of the University, and Dr. Chester Peters, vice president for student affairs of the University, were at the luncheon and spoke with the visiting group. Both emphasized their support of the petition for a Tau Beta Pi chapter.

From about 1:30 to 3:00 p.m. the visitors were given detailed tours of the engineering buildings, visiting all of the departments and their laboratories. The inspectors were favorably impressed with the engineering facilities and equipment.

At 3:00 p.m. the inspection committee met again with Tau Beta Gamma members and interested faculty. The Kansas State University group asked a number of questions about Tau Beta Pi, the petitioning process, and chapter operations. Prof. Forman, who is national president of Sigma Tau, and Mr. Palo were asked about relations between Sigma Tau and Tau Beta Pi and they responded with information about the current status of merger negotiations between the two organizations. In response to questions by inspection team members, it was learned that the senior engineering class of K.S.U. usually is larger than might be indicated by the preceding year's junior class because of the "4 1/2 - year" curriculum, with the University classifying as seniors all students who have completed the third year of work. K.S.U. is also getting a number of junior-college transfers at the third-year level of engineering. Tau Beta Gamma has 28 active members currently and expects to initiate 5 to 10 more this spring. No formal courses in professionalism or ethics are offered at K.S.U. although the faculty and student organizations emphasize these topics in their normal work.

The committee was favorably impressed with the operations of Tau Beta Gamma and with student-faculty relations at K.S.U. The present competition between Tau Beta Gamma and the Sigma Tau chapter on campus for the time, interest, and money of the top students is not helping either group.

The committee was most graciously received at Kansas State University and expressed its appreciation to Tau Beta Gamma, Mr. Meiners, Dean Nevins, Dr. Tillman, and all who are interested in securing a chapter of Tau Beta Pi for their institution.

In a private meeting of the committee, report forms were distributed to all inspectors and they were asked to return them with their comments. A brief discussion of the day's activities and impressions was held. The visit was concluded at about 4:45 p.m.

Written reports have been received from all members of the inspection committee, and each recommends to the Executive Council and to the 1973 Convention that a chapter be granted to Kansas State University. All committee members report favorable impressions of the institution and of Tau Beta Gamma. The individual reports of the inspectors are a part of this report to the Executive Council.

Sincerely yours,

Robert H. Nagel

RHN/sf

#### THE UNIVERSITY

James A. McCain-President

Founded February 16, 1863, in Manhattan, Kansas, the University was established under the Morrill Act, by which land-grant colleges came into being.

The campus is in northern Manhattan, and consists of 315 acres. Most buildings are constructed from native limestone. Beyond the campus are more than 4,000 acres of University land used for experimental work in agriculture.

Manhattan is situated in the rolling flint hills of northeast Kansas, 125 miles west of Kansas City via Interstate Highway 70. Located five miles north of the city is Tuttle Creek Lake, one of the largest in the Midwest.

#### ACCREDITATION

Kansas State University is fully accredited by the North Central Accrediting Association and by various professional accrediting agencies. Credit earned is transferable to other institutions.

#### **ADMISSION**

Kansas residents who are graduates of an accredited Kansas high school are admitted to Kansas State University.

Out-of-state applicants are expected to have a strong academic rank in class and to have made good scores on the American College Test battery.

Specific admission procedures are given to each student at the time he inquires about admission. Students are urged to apply early in their senior year of high school.

All transfer students (those with previous college credit) are expected to have a 2.0 (C) average or better in their previous academic work to be considered.

#### **ENROLLMENT**

The K-State student body for the fall semester of 1972 totaled 15.158 - the largest ever. This includes 9,199 men and 5,959 women. All 50 states and more than 50 countries are represented. Enrollment of the eight colleges and the Gradu-

ate School is as follows:	
College of Agriculture	
College of Architecture and Design	848
College of Arts and Sciences	5,798
College of Business Administration	
College of Education (jrs. & srs.)	666
College of Engineering	978
College of Home Economics	
College of Veterinary Medicine	
Graduate School	2,129

#### DEGREES

More than 58,000 degrees have been granted by Kansas State University.

In 1972, 3,173 degrees were granted. This includes 2,408 Bachelor's, 547 Master's, 143 Doctor of Philosophy, and 75 Doctor of Veterinary Medicine degrees.

#### **FACULTY**

#### Fall, 1972

Teaching and Research	1.678
(Does not include administration,	student
services, extension, library)	
Full-time Teaching Faculty with	
Doctoral Degrees	64.7%

#### STUDENT FEES

#### Subject to change without notice

Fees for undergraduate and graduate students are \$263 per semester for Kansas residents and \$658 for out-of-staters. Outof-state graduate students employed by the University as teaching or research assistants on at least a two-fifths time basis qualify for in-state fees. College of Veterinary Medicine students pay \$313 per semester if a Kansas resident or \$733 if an out-of-state student. Students enrolled in six or less credit hours pay at a per credit hour rate.

#### STUDENT HOUSING

	Residence Halls 4,135 students	1971-72
3	Scholarship Houses 150 students	
24	Married Student Apartment	Gift Aid (2,500 stud
	Buildings 576 apartments	Loan Programs (3,6
27	Fraternities 1,483 men	students)
12	Sororities 650 women	Jobs (2,300 student

#### HOUSING FEES

#### Subject to change without notice

The state of the s	-	AND SOCIAL TO USE			
Residence	e Halls		\$468	seme	ester
Married	Student	\$255 Apartmen	summe	er ses	sion
(bills	paid)		\$75	-\$95	mo.

#### **EXPENDITURES 1971-72**

Kansas State University's expenditures for fiscal 1971-72 totaled \$62,131,467 and came from the following sources:

	rcent
State Appropriations Federal Funds (including Federal	
Research Contracts)	22.3
Auxiliary Enterprises (such as	9.0
housing, athletics, union)	
(excluding federal) and Sales	10.8
Revenue Bonds	0.2

#### STUDENT FINANCIAL AID

	(2,500 studer rograms (3,600	1.2 milli	on
stude Jobs (2	nts) ,300 students)		

#### RESEARCH

Research expenditures totaled \$12.9 million during fiscal 1972. Sixty-three percent of these funds came from other than state appropriations, such as federal or private grants.

Facilities of specific significance to the research effort at KSU include a highcapacity computing center, an expanding library, environmental research laboratory, two high-energy particle accelerators, a low power nuclear reactor, a mass spectrometer laboratory and a food and feed grain laboratory.

#### LIBRARIES

The Kansas State University Libraries provide service through the main Farrell Library, four subject departmental libraries and two residence hall libraries. Total holdings number 636,000 volumes and are increasing at the rate of about 45,000 volumes a year.

#### OFF-CAMPUS EDUCATION

Off-campus education is conducted primarily by these services:

- Division of Continuing Education— Makes educational resources of KSU available to the people of Kansas through in-person credit and non-credit classes, conferences, workshops, and courses via The Statewide Continuing Education Network.
- Division of Cooperative Extension—Provides educational programs throughout the state for rural and urban residents. Personnel in the 105 counties stress programs in agriculture, home economics, 4-H and youth, horticulture, and community resource development. A highly specialized staff is headquartered on the KSU campus and at five Area Extension offices across the state.
- Kansas Industrial Extension Service— Furnishes technical information and assistance to Kansas business, industry and commerce.

#### INTERNATIONAL PROGRAMS

Kansas State University sponsors several types of international programs:

 Academic Year Study Programs—Justus Liebig University, Giessen, Germany; Ludwig Maximilian University, Munich, Germany; Universidad Industrial de Santander, Bucaramanga, Colombia, S.A.

• Summer Study — Sorbonne, Paris, France; Universidad Ibero-Americana, Mexico City; University of Salzburg, Austria; Italian Art History, Italy.

 Study Tours—Humanities Abroad in Europe, and Foods, Fashions, and People in Europe.

- International Farm Youth Exchange Program.
- South Asia Language and Area Center.
   International Agricultural Programs in Nigeria.
- Technical Assistance in Grain Science in developing countries.

#### LANDON LECTURES

Kansas State University maintains one of the nation's most successful lecture series, the Alfred M. Landon Lectures on Public Issues.

Among other notables, the series has attracted President Richard M. Nixon, Senator Hubert H. Humphrey, Governor Ronald Reagan, Senator Mike Mansfield, the late Senator Robert F. Kennedy, Senator Hugh Scott, former Chief Justice Earl Warren, Environmental Protection Agency Administrator William Ruckelshaus, Secretary of Agriculture Earl Butz, and CBS Newsman Dan Rather.

#### ENTERTAINMENT AND THE ARTS

An attractive program of fine arts and entertainment is maintained at KSU.

The KSU Auditorium, dedicated in November, 1970, is the setting for many cultural events, including an Auditorium Series presenting top-name entertainers, K-State Players' productions, and Music Department concerts.

#### ATHLETICS

Kansas State University is a member of the Big Eight Conference, regarded as one of the best. K-State athletic teams are nicknamed the Wildcats, and the school color is Royal Purple.

#### THE K-STATE UNION

The center of campus community life at Kansas State University is the K-State Union. Constructed entirely from student fees, the five-level structure opened in 1956. It received a major addition in 1963, and a \$2.8 million second addition in the fall of 1970.

The Union includes cafeteria and snack bar, ballrooms, meeting and banquet rooms, bookstore, theatre, information desk, student activities center, recreational facilities and a self-service postal unit.

#### ACADEMIC CALENDAR

#### Spring Semester 1973

Registration	January 11-13
Classes Begin	January 15
Spring Recess	March 12-16
Semester Examinations	
Commencement	May 11

#### Summer Session 1973

Registra	tion	June	4
	Begin		5
Classes	End	July	27

#### Fall Semester 1973

Registration	August 23-25
Classes Begin	August 27
Thanksgiving Vacation No	vember 21-25
Semester Examinations De	ecember 17-22

For More Information Write:

Dean of Admissions & Records
Anderson Hall
Kansas State University
Manhattan, Kansas 66506

FACTS ABOUT
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1973

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# THE UNIVERSITY OF KANSAS DEPARTMENT OF MECHANICAL ENGINEERING

Fowler Hall – Lawrence, Kansas 66044 913-864-3181

February 6, 1973



Mr. Robert H. Nagel
The Tau Beta Pi Association, Inc.
P.O. Box 8840
University Station
Knoxville, Tennessee 37916

Dear Bob

In response to your letter of February 2, concerning an inspection of Tau Beta Gamma, local engineering honor society at Kansas State University, I hope to bring young David Walters with me for the inspection. Mr. Walters is president of the Tau Beta Pi chapter at the University of Kansas at Lawrence.

Jim Bayne invited me to an ACHS dinner to be held in Topeka the Friday evening before the Monday February 26 inspection at K. State. I will look for you at the ACHS banquet.

Cordially,

George W. Forman

100

#### THE TAU BETA PI ASSOCIATION

INCORPORATED

NATIONAL ENGINEERING HONOR SOCIETY MEMBER OF ASSOCIATION OF COLLEGE HONOR SOCIETIES



INCORPORATED 1947

P. O. BOX 8840, UNIVERSITY STATION KNOXVILLE, TENNESSEE 37916 TELEPHONE: 615/546-4578

SECRETARY-TREASURER ROBERT H. NAGEL

February 2, 1973

The Presidents and Advisors of Kansas Alpha and Kansas Beta

Dear Friends:

We have received a preliminary petition for a new chapter of Tau Beta Pi from Tau Beta Gamma, local engineering honor society at Kansas State University, Manhattan, Kansas. Our Executive Council has authorized appointment of an inspection committee to visit the petitioners and their institution. It will be the function of the committee to advise the Executive Council and the 1973 Convention as to the desirability of chartering a chapter at Kansas State University.

Each of your chapters is requested to send representatives on the inspection visit to Kansas State University. We want each of your chapters to be represented, please, by its president or his delegated alternate, by at least one chapter advisor, and by any other student members and advisors who care to come. Visits to petitioning groups are most important to the Association, and the Executive Council and I will appreciate your chapters sending inspectors on this visit.

The date of the inspection is Monday, February 26, 1973. In addition to your chapter representatives, the inspection committee will include President George P. Palo, Director of Chapter Development G. Ronald Ames, and myself of the national organization.

We shall all meet by 10:00 a.m. on February 26 in the office of Engineering Dean R. G. Nevins in Seaton Hall on the Kansas State University campus. Seaton Hall is identified on the campus map on the inside back cover of the K.S.U. Bulletin as building No. 18. Our instructions are to park our cars in the lot in front of the Union, building No. 11, and walk through the Union and across the drive to Seaton Hall. We are also advised, in driving to Manhattan on I-70, to get off the Interstate on state route K-177 North to the town of Manhattan. The campus is a short distance west of K-177, practically in the center of town.

Inspection committee members will be reimbursed by my office for their expenses in connection with this assignment under our regular travel-expense policy, which is stated in the Bylaws for Convention delegate travel. Automobile allowance is 8¢ per mile for the car and driver, plus 1¢ per mile for each Tau Beta Pi member rider, plus incurred tolls and parking expenses. I would expect that your chapter representatives will be able to drive to and from Manhattan in one day, but if this is impracticable overnight and other enroute expenses are allowable, of course.

Our inspection work should be completed by about 5:00 p.m. on February 26. Plans for your travel should be built around the 10:00 a.m. arrival and 5:00 p.m. departure times at Kansas State University.

All interested persons at Kansas State University will be invited to join us in the day's activities. Dean Nevins or his official representative and Mr. John H. Meiners, president of the local society, plus Dr. Frank A. Tillman, chief faculty advisor of Tau Beta Gamma, will first give us brief descriptive statements about their institution, its engineering programs, and the local society, at our morning meeting. Mr. Palo and I will also say a few words about Tau Beta Pi and the petitioning process. We shall then take short general campus tours, guided by Tau Beta Gamma members. At noon we shall have lunch with the Kansas State University people and have an opportunity, we hope, to meet administrative officials of the University who will be invited to join us.

Following lunch we shall tour the engineering facilities in detail, and then we shall meet again at about 3:00 p.m. with the Kansas State University people for discussion, questions, and comments. It must be emphasized that an important purpose of an inspection visit to a petitioning group and its school is to make ourselves available for any questions they may have about Tau Beta Pi.

Finally, our inspection committee will hold a brief private meeting to discuss our recommendations to the Executive Council and the Convention.

Copies of Tau Beta Gamma's preliminary petition and the Kansas State University Bulletin are enclosed to the presidents of Kansas Alpha and Beta. The extra copies of these materials should be given to those chapter representatives who will be making the visit with us.

So that proper plans can be made for our group, please tell me by February 19 how many persons from your chapter will join the inspection committee. Your service on the visit will be of great value to Tau Beta Pi and we shall thank you for taking the time to be with us.

Tau Beta Gamma's preliminary petition and the University catalog should serve to answer most of our factual questions about the local society and its institution. Further information can be made available to us during the inspection visit. Let me refer you, please, to our requirements and recommendations for the establishment of new collegiate chapters, in Constitution Article VI, Section 2, and in Bylaw IV. You will note that several of the petitioning steps will be accomplished and checked during our inspection visit.

We shall want to ask the Tau Beta Gamma people about the operational policies and procedures of their society, particularly in the selection of new members and in their program of useful work for the benefit of their institution and fellow students. We might be able to help them from our own chapter experience with advice and suggestions about honor society principles and policies.

It must be emphasized that an inspection of this sort is a "two-way street." Not only will we be looking at Kansas State University, but they will be looking at us. We must not miss the opportunity to tell them everything they want to know about Tau Beta Pi.

Each member of the inspection committee will be asked to send me his written vote on the petition after we have left campus. The recommendations of the committee will carry great weight with our Executive Council and with the 1973 Convention because those of us on the visit will have first-hand knowledge of the school and the local society.

If our committee recommends that a chapter be established at Kansas State University, Tau Beta Gamma should seek brief letters of support from each of your chapters, for inclusion in its final petition. We should also be prepared on February 26 to make any other comments or suggestions with regard to their final petition. If our committee should recommend against establishing a chapter at Kansas State University at this time, we would expect the local society to withdraw its preliminary petition, although it would be free to present it to the 1973 Convention for action anyway.

I look forward to seeing several officers, advisors, and members of your chapters in Manhattan on February 26.

Sincerely yours,

Robert H. Nagel

RHN/et

Enclosures

CC: Dr. Frank A. Tillman Mr. John H. Meiners

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REPORT OF THE INSPECTION COMMITTEE TO KANSAS STATE UNIVERSITY

#### February 26, 1973

I (recommend)

(MAXIMOXIX RECOMMEND)

to the Executive Council that Tau Beta Gamma's preliminary petition

be approved for final printing and distribution to the chapters and officers of Tau Beta

Pi, and I (recommend)

(dox not recommend)

(dox not recommend)

(to the 1973 Convention that a chapter be granted to Kansas

State University.

#### Comments on Kansas State University:

Kansas State meets our requirements for a Chapter, and should be a credit to Tau Beta Pi.

#### Comments on Tau Beta Gamma:

I feel that the students and faculty at K-State have done a fine job of establishing a colony chapter.

## Additional comments: (Attach extra sheet if necessary.)

If merger of Sigma Tau and Tau Beta Pi becomes a reality, one only trip to install Tau Beta Pi at K-State should suffice.

I suggest that we plan for this probability.

Signed Young Address Hechanical Engineering Dept.

Mailing Address Mechanical Engineering Dept.

University of Kansas, Lawrence, Kansas

Chapter Kansas Alpha Fee Adv.

Date Feb. 27, 1973

RECEIVED
WITH 1 1973
Tau Deta Pi

#### REPORT OF THE INSPECTION COMMITTEE TO KANSAS STATE UNIVERSITY

#### February 26, 1973

I (do not recommend) to the Executive Council that Tau Beta Gamma's preliminary petition
be approved for final printing and distribution to the chapters and officers of Tau Beta
Pi, and I (do not recommend) to the 1973 Convention that a chapter be granted to Kansas
State University.

Comments on Kansas State University:

My past impression of the University was mixed because it was, in part, bosed you other persons opinions. After inspecting the K. STATE ENGINEERING, School personally, I am convinced that the University is dedicated to producing individuals with a hight motivation and a sense of professionalls on for the field of Engineering. K. State is a sime University and descenes the high accreditation it has received in the past. Comments on Tau Beta Gamma:

The chafter seems to be very active and concerned with civil commons on well as excellence in academics. The members applied to be full members of with the field members of Tau Beta Pi. P. recommend the addition of K. State as a vew chapter of Tau Beta Pi with every confidence of the chapters additional comments: espainity in coming out the duties essential to (Attach extra sheet if necessary.)

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Chapter	KANSA	s ALP	HA	
Date 2	26 FEB	1973		

RECEIVED WAK 61973 Tau Bela Pi

#### REPORT OF THE INSPECTION COMMITTEE TO KANSAS STATE UNIVERSITY

#### February 26, 1973

I (do not recommend) to the Executive Council that	Tau Beta Gamma's preliminary petition
be approved for final printing and distribution to	the chapters and officers of Tau Beta
Pi, and I (recommend) to the 1973 Convention	that a chapter be granted to Kansas
State University.	

Comments on Kansas State University: I was very favorably impressed with both the University and its representatives. All of the engineering departments seemed well equiped and well directed. K-State has long been a leading contributor in the areas of agricultural and biological engineering and I know that there are many interdisciplinary activities which allow the various other engineering specialties to strengthen this particular area of contribution as well as their own individual ones.

I believe that Tau Beta Gamma's success thus far is indicative of the reception that a chapter of Tau Beta Pi would find. The officers and members of Tau Beta Gamma have demonstrated their understanding of the rules and purposes of Tau Beta Pi and their desire to foster its objectives. I believe they should have a chapter of Tau Beta Pi and am confident that this addition would credit them and Tau Beta Pi.

#### Additional comments:

(Attach extra sheet if necessary.)

The enthusiasm and interest I sensed in the students, the faculty, and the administrators of Kansas State University provides me with austrong vote in favor of approval of Tau Beta Gamma's preliminary petition. Having been an officer at Kansas Alpha for about a year now, I have developed a great appreciation of the importance of these attributes as prerequisites for successful chapter operation.

Signed	David	Stracter Pres. Ks. alpha
Mailing	Address	532 Rinsside Wr. apt. 11
	Laure	nce, Kansas 66044
Chapter	Kanso	as alpha
Date _ (	March.	2,:1973

#### REPORT OF THE INSPECTION COMMITTEE TO KANSAS STATE UNIVERSITY

# RECEIVED MAK 5 1973 Tau Beta Pi

#### February 26, 1973

#### Comments on Kansas State University:

The quality of the Engineering Staff, the Programs and the students, as well as the interest of the University Administration in the Engineering College, are quite good.

#### Comments on Tau Beta Gamma:

Standards for nomination of candidates to Tau Beta Gamma appear to be high and procedures appear to be good. Both do not differ significantly from those of Tau Beta Pi.

Additional comments:
(Attach extra sheet if necessary.)

The Kansas State University, without reservation, is worthy of being granted a chapter of Tau Beta Pi.

Signed Wichita State University

Mailing Address Wichita State University

Wichita, KS 67208

Chapter Kansas Beta Fec. Adv.

Date March 1, 1973

#### REPORT OF THE INSPECTION COMMITTEE TO KANSAS STATE UNIVERSITY

#### February 26, 1973

#### Comments on Kansas State University:

I was impressed with Kansas State University. The engineering facilities at Kansas State are undoubtedly great.

#### Comments on Tau Beta Gamma:

The person to person contact I had with Tau Beta Gamma's members and supporting faculty, all contributed to my support of their petition for a Tau Beta Pi chapter.

#### Additional comments:

(Attach extra sheet if necessary.)

It was my feelings that the people and facilities of this institution are such as to maintain the high standard of Tau Beta Pi. I feel their membership will reflect favorably on the Tau Beta Association and therefore recommend to the Executive Council and the 1973 Convention that a chapter be granted to Kansas State University.

Signed Dennis D. Hoover Pres.

Mailing Address 1035 N. Lakeview

Derby, Kansas 67037

Chapter Kansas Beta, Wichita State University

Date 2-27-73

### REPORT OF THE INSPECTION COMMITTEE TO KANSAS STATE UNIVERSITY

## RECEIVED MAR 121973 Tau Beta Pi

#### February 26, 1973

I (recommend) to the Executive Council that Tau Beta Gamma's preliminary petition be approved for final printing and distribution to the chapters and officers of Tau Beta Pi, and I (recommend) to the 1973 Convention that a chapter be granted to Kansas State University.

#### Comments on Kansas State University:

Kansas State University has a fine 5chool of Engineering. Their school of engineering is qualified to have a chapter of Tan Beta Pi.

#### Comments on Tau Beta Gamma:

Their Tan Betz Gamma is a small but active organization. Their size is limited because of a Sigma Tan chapter on campus.

#### Additional comments:

(Attach extra sheet if necessary.)

Signed _	John K. Sharp member
Mailing	Address Bex 144 Hill Kanso
	Kansas Beta
Date	3-1-73

RECEIVED WAK 51973 Tau Beta Pi

#### REPORT OF THE INSPECTION COMMITTEE TO KANSAS STATE UNIVERSITY

#### February 26, 1973

#### Comments on Kansas State University:

KSU has grown over a long period of ,years and its buildings and equipment vary from old to new. Faculty members we met were well qualified.

Generally KSU rates Tau Beta Pi - coming in as a sort of middle of the road applicant.

#### Comments on Tau Beta Gamma:

About 10 members of Tau Beta Gamma participated in the inspection and seemed to be a well qualified group. For them to compete with Sigma Tau must be quite a task but they seem to be making a success of it. Chapter activity is commendable.

Additional comments: (Attach extra sheet if necessary.)

Signed	Jung V. Balo	
Mailing	Address 8129 Chesterfield (a	-
	Knewille Tum	
Chapter		
Date	mar. 4. 1573	

RECEIVED WAR 6 1973

REPORT OF THE INSPECTION COMMITTEE TO KANSAS STATE UNIVERSITY Tau Doug fi

February 26, 1973

I (recommend) to the Executive Council that Tau Beta Gamma's preliminary petition be approved for final printing and distribution to the chapters and officers of Tau Beta Pi, and I (recommend) to the 1973 Convention that a chapter be granted to Kansas State University.

Comments on Kansas State University:

the University is an excellent place of study and certainly deserves Recognition of tan Betor Pi

Comments on Tau Beta Gamma:

I felt that the students had a spirit of participations which would veriet in an excellent tan Betu Pi chapter.

Additional comments:

(Attach extra sheet if necessary.)

None

					Kano B.
Signed .		ue y			
Mailing	Address	2736	50,	Senica	Apt Y7
	Wechela	15			67217
Chapter	(5-50)				
Date					

#### REPORT OF THE INSPECTION COMMITTEE TO KANSAS STATE UNIVERSITY

#### February 26, 1973

I (recommend) to the Executive Council that Tau Beta Gamma's preliminary petition be approved for final printing and distribution to the chapters and officers of Tau Beta Pi, and I (recommend) to the 1973 Convention that a chapter be granted to Kansas State University.

Comments on Kansas State University:

Comments on Tau Beta Gamma:

I THINK A MORE SERIOUS APPROACH
ELECTION DE MEMBER :
MAY NOT CONDUCT ELECTIONS IN EXACTLY THE NATIONAL OFFICE, I DO  Additional comments:
BE ENCOLRAGED TOWARD
A HIGH STANDARD-NOT DISCOURABLE
MAYBE A NEWY OTHER CHAPTERS.
FOUNDED TBITCHAPPING
AT KS, O. COULD BE
CONCERNES ABOUT BEING SURE
THAT POTENTAL STUDIENTS ARE
IN FORMED ABOUT BOTH THE ADVANTAGES AND Signed C. Romano Ames
DISABUANTAGES OF THE Mailing Address  APPROACH TOWARD  Chapter MO/B - Manage Officer
EDUCATION HERE. Chapter MO/B - Manage OFFICER
Date 2/26/53

#### REPORT OF THE INSPECTION COMMITTEE TO KANSAS STATE UNIVERSITY

#### February 26, 1973

I (recommend)

to the Executive Council that Tau Beta Gamma's preliminary petition

be approved for final printing and distribution to the chapters and officers of Tau Beta

Pi, and I (recommend)

(de not recommend)

to the 1973 Convention that a chapter be granted to Kansas

State University.

Comments on Kansas State University:

Established, "slag oriented"
Comments on Tau Beta Gamma:
Excalbut program of project work.  Additional comments:  (Attach extra sheet if necessary.)
Singlications of wew 737 chapter of
school which has long had ET chapter with enthusiasm for TBT, are flatering

Mailing Address

Chapter

Dr. Frank A. Tillman Head, Industrial Engineering Dept. Kansas State University Manhattan, Kansas 65502

Dear Dr. Tillman:

The package of 8 additional petitionppamphlets and K.S.U. catalogs has arrived safely, thank you very much.

My letter of information and instructions about the inspection visit will be prepared next week and will gotto our two Kansas chapters with copies to you.

We are looking forward to our visit on February 26.

Sincerely yours,

Robert H. Nagel

RHN/sf

0/00/27

Koneson State Chur, - In. FA Tillman - 913/532-5606 Keel 15 more jet. & ceti-ly Feb. 1 Keel syport le for from engidean & presofe. Set 2016 - Feb. 26 Meade local mess -Fréderiche En Paux 483 GRADO, GEDWENCZ, ZHOC Eastern Acoc - Dens Mapou Covert of 150 cafelon

Phone to Dr. FA Tillman - K50

(folker to his secy.)

Will some support le for from

doon of emps. & K50 pres

Types for Feb., 26 for engree from



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UCC 26 1972

Tau Beta Pi

KANSAS STATE UNIVERSITY Manhattan, Kansas 66502

DEPARTMENT OF NUCLEAR ENGINEERING SEATON HALL

December 15, 1972

Deser me

Executive Council Tau Beta Pi Association University of Tennessee Knoxville TN 37900

#### Gentlemen:

The Tau Beta Gamma Society at Kansas State University has expressed the desire to affiliate with your organization.

I believe that the affiliation with Tau Beta Pi would not only stimulate the personal professional growth of the members, but would also enhance the growth and prestige of the organization.

As a faculty member at Kansas State University and a member of Tau Beta Pi, I am writing to express my recommendation and strong support for this affiliation.

Fraternally,

Richard E. Faw

Member, Beta of Ohio

REF/jlg

Mr. John H. Meiners 221 N. Delaware Manhattan, Kansas 66502

Dear John:

Thank you for your November 8 letter. I gather that you are planning to hand us your preliminary petition by December 31 of this year. Excellent!

We certainly don't want to put your little local society to any such expense for 250 copies of the Kansas State University catalog. The main purpose of Tau Beta Pi's asking for college catalogs with petitions is to make it easy for the local group to answer the questions implied in our Bylaw IV and to give our people a general overall view of the institution. But you can give the detailed answers required in your petition pamphlet itself, perhaps using only one or two pages to do so, which would be much cheaper of course. As for giving us a general view of Kansas State University, perhaps there is available at little or no cost a small informational brochure such as institutions frequently give to prospective students.

In any event, please give us six copies of the full K. S. U. catalog with your preliminary petition so that our Executive Council can get all the information it wants. Then we can consider the bigger problem of 250 more copies of something later, perhaps during our inspection visit.

The difference between the preliminary and final petitions is this: After reviewing your preliminary petition and visiting with you, our people may have some questions that could be answered in your final petition pamphlet. The things that our Executive Council and inspection team members might ask are likely to be the same questions that our Convention would ask later. We'll head off those Convention questions by answering them in the final petition.

Yes, your preliminary petition should contain the formal "petitioning letter" specifically asking for the chapter of Tau Beta Pi.

Your agricultural engineering member has a legitimate gripe. Our Constitution and Bylaws ought to be revised in this and some other details. Agricultural engineering is no longer the "weak" engineering program it once was,

Mr. John H. Meiners 2 November 13, 1972

where the curriculum is now E.C.P.D. accredited. Tau Beta Pi has at least 30 chapters where agricultural engineers are routinely considered, elected, and initiated into Tau Beta Pi, along with all other engineering students. In fact, I cannot think of a Tau Beta Pi chapter institution which offers agricultural engineering today whose students are not routinely eligible for

In answer to Dr. Tillman, our inspection committee will be interested in those things outside of E.C.P.D. accreditation or beyond the concerns of the E.C.P.D. For example, while E.C.P.D. accredits engineering curricula for a limited time, Tau Beta Pi establishs chapters, hopefully, forever. The long-range future of engineering at a petitioning institution is therefore of more interest to us than the present status. We also want to determine whether a Tau Beta Pi chapter at a petitioning institution would have, and continue to have, the support of the faculty and administration of the institution. Without such support, a Tau Beta Pi chapter cannot long exist. Tau Beta Pi is also interested in the work of the local honor society, as an indicator of the kinds of things the chapter itself would be engaged in once chartered. During the inspection visit we would ask how your local group determines scholastically eligible candidates and how it selects its members from the scholastically eligible group. Our interest in these matters is both mechanical and philosophical. Our people would also want to know what kind of work the local group has been engaged in, beyond merely electing and initiating new members periodically. Does the local society feel an obligation to its college and its community and how does it meet that responsibility.

These are the things we would talk about. Eyeball to eyeball so to speak, during the one-day inspection visit. It would also be our purpose to give you and your group all the information you might want about Tau Beta Pi; so the visit is, as I call it, a two-way street, with answering your questions equally important with answering our questions. I'd like to think of a different name for our inspection committee, which would more clearly reflect its two purposes; but the word "inspection" is rocted in our lexicon and is hard to dislodge.

Sincerely yours,

Robert H. Nagel

RHN/et

membership.

DEAR Mr NAGEL:

THANK YOU VERY MUCH FOR YOUR LETTER OF AUGUST 30, 1972. IT PROVIDED MUCH OF THE INFORMATION NEEDED. FOLLOWING YOUR SUGGESTION, WE HAVE OBTAINED MOST OF THE MATERIAL NEEDED FOR OUR PETITION.

ONE POINT, HOWEVER, IS TROUBLESOME. I UNDERSTAND THAT WE MUST PROVIDE 6 COPLES OF THE KSU CATALOG WITH OUR PRELIMINARY PETITION AND 250 COPIES WITH OUR FINAL PETITION. THE COLLEGE OF ENGINEERING DOES NOT PRODUCE A SEPARATE CATALOG AND OUR GENERAL CATALOG IS 317 FULL SIZE PAGES, IT WOULD COST US \$1.50 EACH FOR A TOTAL OF \$384.00 TO PURCHASE THESE CATALOGS. WE ARE BY NO MEANS A RICH CHAPTER. I AM NOT EVEN SURE THAT 256 COPIES OF THE CATALOG WOULD BE AVAILABLE. IS THERE SOMETHING WE CAN DO ABOUT THIS PROBLEM?

ONE OTHER QUESTION IS ABOUT THE DIFFERENCES BETWEEN THE PRELIMINARY AND FINAL PETITIONS. ARE THEY THE SAME OR DO WE ADD MORE INFORMATION IN THE FINAL PETITION? SHOULD THE PRELIMINARY PETITION CONTAIN A PETITIONING LETTER?

ONE OF OUR AGRICULTURAL ENGINEERS WAS WONDERING WHY TOTT SEEMS TO DESCRIMINATE AGAINST AGE'S. I REFER TO BYLAW IV, SECTION 4.01, 3 (e) 4 WHICH DOES NOT ALLOW A CHAPTER TO COUNT THE AGE DEPARTMENT. HE INDICATED THAT THERE WERE OTHER EXAMPLES ALSO.

OUR ADVISOR, DR FRANK TILLMAN,
ALSO WISHED ME TO ASK YOU EXACTLY
WHAT YOUR INSPECTION COMMITTEE WOULD
BE INSPECTING FOR.

THANK YOU AGAIN FOR YOUR TIME.
SINCEPELY,

JOHN H. Meiners
(PRESIDENT OF KANSAS STATE
UNIVERSITY TAU BETA GAMM)
221 N Delaware
Manhattan, Ks 66502

November 8, 1972 Mr. John H. Meiners 221 North Delaware Manhattan, Kansas 66502 Dear John: I have received the enclosed letter from Mr. Wayne Reeves of Hallmark Cards, Inc. in support of your proposed petition for a chapter of Tau Beta Pi. I presume this letter ought to be in your hands, for inclusion in your preliminary petition booklet. I have kept a copy of it for my files. Drop me a note, please, and tell me what your present plans are for giving us a petition this season. A number of events and schedules have to be coordinated in Tau Beta Pi, and I want to be sure to leave a place for Kansas State if you are giving us aspetition by January 1, 1973. Sincerely yours, Robert H. Nagel RHN/sf Enclosure

NOV 1 1972 Tau Betari

Hallmark Cards

HALLMARK CARDS INCORPORATED KANSAS CITY, MISSOURI 64141

October 30, 1972

The Executive Council
The Tau Beta Pi Association
University of Tennessee
Knoxville, Tennessee 37916

A letter has been forwarded to our office indicating that Kansas State University is in the process of submitting a petition to establish a Tau Beta Pi Chapter at Kansas State University.

For your information, Hallmark Cards, Inc. actively recruits on the Kansas State Campus and are aware of the fine engineering programs at K-State. We concur that a Tau Beta Pi Chapter would add prestige to the University and also help attract competent high school graduates interested in the engineering field.

Sincerely,

celague Keaves

Wayne Reeves College Relations

WR:dx

Mr. John H. Meiners 221 North Delaware Manhattan, Kansas 66502

Dear John:

Thank you for your August 27 letter. I'm pleased to know that you are the new president of Tau Beta Gamma, and I look forward to working with you on this Tau Beta Pi project this year.

Yes, Tau Beta Pi can give full consideration to a petition for a new chapter from Tau Beta Gamma during the coming academic year. If that is your wish, then you should prepare six copies of your formal petition in preliminary form (by the cheapest possible duplication method) and send them to me, along with six copies of the Kansas State University catalog (College of Engineering tatalog if it is prented separately) by January 1, 1973. Those six copies would be studied by our Executive Council whose responsibility is to make a preliminary decision about the establishment of any new chapter. If the Council's decision is favorable, then we should arrange to pay a one-day visit of inspection to Tau Beta Gamma and K.S.U., in February or March, on a mutually agreeable date. The inspection committee would include several national officers of Tau Beta Pi plus student and faculty representatives of other Tau Beta Pi chapters near you.

The inspection committee would report back to our Executive Council. If that report should be favorable, we should ask your group then to prepare your final petition booklet (again by inexpensive but reasonably attractive means) in 250 copies. Those copies, plus an equal number of the appropriate K.S.U. catalogs concerned with engineering, would be sent to me by June 1, 1973. I would distribute them to our 1973 Convention delegates in the summer so that they would have opportunity to look the material over before voting on your petition at the 1973 national Convention. That Convention will be held in Gainesville, Florida October 25-27, 1973. Tau Beta Gamma would be represented at the Convention by at least one student and one faculty member. The Convention makes the final decision about the establishment of new collegiate chapters in Tau Beta Pi.

I recognize the large amount of work that Tau Beta Pi requires in preparing a petition. But our Bylaws require it, and I have no authority to exempt you or any other group. Incidentally, otherppetitioning groups in recentlyears have found that the faculty resumes we require are most easily obtained from information prepared by the Dean of Engineering for the E.C.P.D. You should inquire of your dean about this. He may have the material in almost perfect order for your purposes.

Have I answered your questions, I hope? A copy of the current Constitution and Bylaws booklet of Tau Beta Pi is enclosed. See especially Bylaw WV and Con-

RECEIVED

AUGUST 27, 1972

RECEIVED

AUGUST 20 1972

August 27, 1972

Mr. Robert H. Nagel Secretary-Treasurer The Tau Beta Pi Association P.O. Box 8840, University Station Knoxville, Tennessee 37916

Dear Mr. Nagel:

I am the new president of the Tau Beta Gamma society at Kansas State University. We are currently seeking recognition as a chapter of Tau Beta Pi. I wish to obtain from you the exact steps we must take to become a Tau Beta Pi chapter.

I have a copy of your letter to Mr. Curtis E. Jilg of October 25, 1971. In this letter, you state that a formal petition for acceptance as a chapter can be officially considered by Tau Beta Pi on January 1, 1973.

I have copies of two recent successful petitions booklets. I would like to inquire if there exists a set of guidelines to the forming of such a booklet or should we merely pattern ours after the samples? A lso, which sections are considered mandatory and which are unnecessary? I refer specifically to the tedious job of accumulating faculty resumes.

I understand that we are to produce six copies of our petition booklet. To whom are these to be mailed? Should any other information accompany the booklets?

In general, I would like to hear from you what actions we must take and what further requirements must we meet:

Thank you very much for your help.

Sincerely,

John H. Meiners

October 25, 1971

Mr. Curtis E. Jilg Corresponding Secretary Tau Beta Gamma C/o Industrial Engineering Department Kansas State University Manhattan, Kansas 66502

Dear Curtis:

I'm glad to have your letter of October 20 and to know Tau Beta Gamma is progressing well.

Actually, you owe me no official reports because your group is not yet chartered as a Tau Beta Pi chapter, but I do appreciate being kept up-to-date on your activities and programs.

The earliest date by which Tau Beta Pi could officially give consideration to a formal petition for a chapter at Kansas State University is January 1, 1973. This is based on my understanding that Tau Beta Gamma was established in the fall of 1970. Under our requirements that a local engineering honor society patterned directly on Tau Beta Pi must operate for at least two years, we would not be able to give consideration to your petition until that requirement had been met. The purpose of the requirement, by the way, is not to delay the establishment of a chapter at Kansas State; rather, it is to give the faculty and administrative officials of your institution full opportunity to see how the honor society of this sort can serve before becoming committed to national affiliation.

However, it would be quite proper for your Tau Beta Gamma members fifth academic year to prepare your preliminary petition and give it to us late in the spring or early in the summer of 1972. Then, by the time formal action was taken by our people, the two-year requirement would have been met.

Do you have samples of recent successful petitions booklets in Tau Beta Pi? If not, I can send you a couple and you could begin to collect the information required and put it in shape for producing six copies of your preliminary booklet, which would constitute your preliminary petition.

Members of Tau Beta Gamma will be quite automatically eligibile for initiation into Tau Beta Pi once the Kansas State University chapter has been granted and installed. This is not the same, I know, as getting Tau Beta Pi membership while you are still in school, but it is the way that Tau Beta Pi requires.

# Kansas State U.: Whatever Happened to Good Old State U.?

Manhattan, Kansas. There is a joke among the 14,000 students at Kansas State University (KSU) that their institution is Nixon's favorite high school. Aside from reflecting on the caliber of education there, the joke has a point. Over the last 5 years, this state university in the farming town of Manhattan, Kansas, has remained amazingly immune from the turmoil that has swept through most of the nation's more liberal and cosmopolitan campuses.

KSU's reputation for peacefulness and stolid conservatism was the reason, many here say, that President Nixon chose to make his first university appearance here after the National Guard's shooting of four students at Kent State University in May 1970. In his KSU address in September 1970 Nixon delivered a much publicized call for reconciliation with the student generation. Days before, in San Jose, California, the presidential car had been allegedly stoned by student demonstrators; the man who ordered the Cambodia invasion that spring was not exactly popular with the young. But at KSU, virtually every student in the college jammed the auditorium and cheered the President wildly.

KSU is a land-grant college—designated so by the state legislature after the Morrill Land Grant Act was signed by President Lincoln in 1862. Today it is one of six in the university system supervised by a single board of regents. In keeping with the Morrill Act's dictum that it "teach such branches of learning as are related to agriculture and the mechanic arts . . . for the practical education of the industrial classes," KSU to this day is the "aggie" or agricultural school in the state university system, with its strongest departments being agriculture, home economics, engineering, and veterinary medicine.

It is possible to walk around KSU this fall—on tidy paved walks and well-tended lawns, among groups of students who look incredibly laundered and well rested, where there is neither a hip-pie nor a graffito in sight—and imagine that the 1960's just didn't happen here.

But KSU is in fact changing. Among the students there is now a substantial black population. Blocks from the old football stadium is an officially endorsed free university offering courses in everything from medicine for the layman to gay liberation; the supposedly apathetic, apolitical students complain about lack of communication with the university administrators.

At KSU, political views tend to run into a wholesome, middle-America, moderate-to-right conservatism. There are few extremists on the campus; those who come here find the political surroundings barren and give up; otherwise they move to more fertile, liberal ground elsewhere. "A lot of people from the East arrive here and are in a big hurry to change things. But if they don't adjust to the pace here, they just leave. You don't get anywhere here by coming on strong," says Dave Hursh, a member of the free university and a New Yorker who has learned to mix with the Kansas style. But the older generation at KSU explains the conformity and conservatism in another way. "We're very close to production out here, and you might say that our students still believe in a day's work for a day's pay," says Bruce Laughlin, director of placement, not without a touch of chauvinism.

Statistics provide some explanation. A majority of the students come from families where neither parent attended college. Geographically, too, they come from Kansas' farm population and small rural towns: families in the urban areas of Kansas City, Topeka, and Wichita tend to send their high school graduates to the more urban campus of the University of Kansas (UK) at Lawrence.

Moreover, many on the campus here are convinced that KSU's reputation as an Eden-like sanctuary from drugs, political radicalism, hippie transients, and other threatening things has set in motion a Darwinian process of selection. A student looking for political activity and a wide campus experiance just doesn't bother to come to Manhattan, they say. As one feature

writer in the Kansas State Collegian explained it: "Kansas State has a distinct reputation in the minds of many parents. Whether or not this image of the school corresponds to reality is irrelevant to the fact that parents are influenced by it." This may account for the fact that this fall, KSU was the only college in the state to experience a big jump in enrollment-1000 more students enrolled than the normal annual increase, or a rise of 9 percent. Moreover, while many private and state universities are watching alumni giving droop, at KSU donations are climbing steadily upward.

But the atmosphere of peace and quiet here, so dear to parents and alumni, does not exclude change. One does not have to look far for shifting student attitudes, a younger, better educated faculty than that of 5 or 10 years ago, and a changed viewpoint in the college administration of what in the 1970's, an "ag school" should become. Finally, in an ironic twist, KSU seems to be benefiting academically from the slumped job market for Ph.D.'s which has hurt universities elsewhere.

The University for Man (UFM) is one index of change. University for Man was started in 1967—located in a commune—as a vehicle for ungraded, noncredit classes for students, Manhattan residents, and anyone else interested. The project has perked along at a comfortable distance from the traditional university ever since. It even lives off of funds provided by student government. Its director, Sue Maes, holds the post of assistant instructor at KSU. About 10 percent of the KSU student body participates in the courses which include candlemaking, ecology, astrology, women's liberation, and interpersonal communications.

What is so striking about UFM is not what it offers, but the fact that it exists at all, and, moreover, has the approval of pretty nearly everyone at Kansas State from President James A. McCain on down. On almost any other campus, such a place would be a focus of opposition to the university administration. Instead of focusing on the Vietnam war or university policies UFM has gone most heavily into the rather neutral issue of open classrooms and free education-less at KSU than in high schools and elementary schools in the Kansas area. As for the administration, "we don't have much to do with them," Sue says, "there are so many things you can do without confrontation. We think that the changes will come about only when you get a lot of kids who are aware."

Another change in KSU life was brought about by a black recruitment program which began several years ago, when increasing numbers of black students from Kansas and from out of state were added. By 1968, there were some 200 black students on campus; a yearly black-culture week and the formation of a black student union are testimony to their presence. The experience has not been entirely successful. Two and three years ago, there was a series of incidents-minor in scale compared to those at Cornell and elsewhere, but major for KSU. A few of the black students were subsequently involved in disciplinary action, both on campus and in the civil courts.

But in a fashion typical of KSU's calm style the situation is now quiet, although not without tension. And either because the climate for blacks there is too uniform and discouraging or because of subtle university disenchantment with recruiting, KSU bucked national trends this fall when its black enrollment actually dropped.

But the real transformation at KSU is in academics.

The perennial dilemma of "ag schools" is that the requirement of strength in agriculture and veterinary subjects inhibits departments in the natural sciences and the liberal arts to develop independent, strong programs. Thus the race for both prestige and large budgets, a national pattern for all academic departments in the last 20 years, runs into obstacles in a land-grant college.

KSU's board of regents has looked favorably on developing agriculture and related departments, but insists that other departments not compete with those in other universities in the state. The UK's literature and history departments have been favored by the regents, but at KSU they have gone begging. Both UK and KSU have developed computation facilities and a joint computer science program. However, a KSU computer man says that at the other state schools-Emporia, Pittsburg, and Hays, "they are just so grateful if we can send them a bent IBM card."

In recent years KSU has been working toward a resolution of this traditional academic dilemma. Caroll V. Hess, dean of the College of Agriculture, explains, "The housewife doesn't buy potatoes anymore; she wants to

# Stever-NSF Nomination

As Science went to press Monday, the White House announced the long-expected appointment of H. Guyford Stever, president of Carnegie Mellon University to succeed William D. McElroy as director of the National Science Foundation. McElroy leaves the post in February to become chancellor of the University of California, San Diego. Stever is known primarily as an administrator. He will be the first college president and the first physicist-engineer to head NSF. He has a 20-year record as a military adviser, particularly with the U.S. Air Force, where he was chief scientist (1955-56) and served for 11 years on the Defense Science Board. He is currently on the National Science Board.—D.S.

buy something she can take out of a box and put in a pan and it becomes a French fry. . . .

"This means two things for us. First, there is a need for a higher quality man to operate a large, commercialized farm operation. Second, off-farm agricultural business has developed in food and fiber processing and distribution. This includes the feed and fertilizer industries, the elevators, milling, and processing of cereals, the pastry process, and others. For many years Midwest schools had two and a half jobs for every agricultural graduate available. This year it is down some, but there is still one and a half job[s] for every graduate. . . . But there is a persistent demand for food. People can stop buying cars or television sets, but they have to go on buying food. And in a few years, the population will double. So we are unlike any other industry."

This gradual professionalization spreads to other fields. The College of Veterinary Medicine, for example, increased its faculty by 100 percent in the last 5 years; but most of the new faculty were Ph.D.'s in physiology and the basic sciences, or M.D.'s. In 1960, only 45 percent of the KSU faculty held the doctorate degree; today, nearly 70 percent do. This change is transforming KSU at least as much as are student styles and politics.

Upgrading its departments has also won KSU an increased share of federal science Foundation to study aspects of nuclear safeguards, which began last year and, 2 weeks ago, sponsored an international conference on safeguards which drew key figures in the field. The grant is for 2 years and is directed by Robert B. Leachman, professor of physics. KSU has an overall federal research income of some \$3 million.

Physics has been able to benefit from the transition, pulling itself up by its bootstraps. The department now has a van de Graff accelerator and shares, with the computing center and mathematics department, a modern, roomy building named Cardwell Hall. (The biology department has a new building, and KSU has a new auditorium, football stadium, and college of veterinary medicine—more signs of prosperity at a time when most universities are building little.)

The physics department's youthful head, an associate professor named Charles E. Hathaway, talks happily about a colleague in the entomology department who wanted some of his graduate students and a laser beam to experiment with the olfactory systems of flies. "I'm not ashamed of this. This is what I think is the definition of a university. I don't think a physics department should operate independently of a university."

By contrast with the widespread unemployment of physics Ph.D.'s, all of KSU's yearly nine or so Ph.D.s, are fully employed. The list of the positions they take might make a M.I.T. or Harvard professor whiten—but it has a refreshing, practical ring. One graduate, whose hobby was railroads, called up Union Pacific, told them they needed a physicist, and got the job. Others: the University of Florida; the Army; the Edgewood Arsenal in Maryland; Uganda; teaching (by choice) in Kansas junior college; Los Alamos Laboratory; a textile mill in Charlotte, North Carolina; Globe Co., an oil concern in El Paso, Texas; and Lawrence Radiation Laboratory.

Finally, the slumped academic job market which has hit the eastern schools and California, has caused many faculty to flee, so to speak, to KSU. "Quite frankly, 2 years ago, I did not have this place in mind," says one junior faculty member in physics. "Like a lot of people here I guess I just came here because things weren't breaking the way I had expected them to." But

there are other reasons, too. Another young campus administrator brought his wife and family to Manhattan (population, 27,000) from St. Louis, Mo. "Back in St. Louis my kids couldn't ride their bikes to get their hair cut because of the freeways. Here the streets are safe." And Hathaway, who came from Texas 6 years ago, says, "there's a certain life on this campus. We have the life, a spark without too much heat. Heat never adds anything when you're doing research."

The man who has presided over KSU's remarkable journey into the 1970's is its president, James A. Mc-Cain, 63. He came to Kansas State as president in 1950, succeeding Milton Eisenhower who had been KSU's president since 1943.

At a time when university presidents have been popping in and out of their jobs like puppets in a Punch and Judy show, McCain's 21-year tenure on the scene has become something of a local legend. He arranged the Nixon visit,

promoted the university construction boom, and is generally responsible for the school's favorable publicity. And he is probably the only university president in the country who still leaves the door to his office open when he talks to reporters. In June 1973 he will retire. His future? "McCain could run for office from anywhere in Kansas tomorrow and get elected," a colleague said, "and there aren't many college presidents in the country who could do that."—Deborah Shapley

DEPARTMENT OF INDUSTRIAL ENGINEERING ENGINEERING SHOPS BUILDING TELEPHONE: AREA CODE 913 532-5606

October 20, 1971

Mr. Robert H. Hagel Secretary-Treasurer of Tau Beta Pi P. O. Box 8840 University Station Knoxville, Tennessee 37916

Dear Mr. Nagel:

We, the members of Tau Beta Gamma at Kansas State University, recently held our meeting of this academic year. The question concerning when we will become an active chapter of Tau Beta Pi National Honorary has been raised by many new and prospective members. We would like to become an active chapter at the end of this academic year (1971-1972) and were wondering if this is possible. This would permit next year's members to belong to a national chapter. If this is not possible, when would we become eligible?

It is also of interest to us that we are carrying out our activities and requirements correctly. Please inform us if there is anything we haven't done, any reports that we haven't filed, or any correspondence we have not carried on in order to fulfill the requirements of becoming a chapter of Tau Beta Pi.

We would deeply appreciate any information concerning this matter on where we stand.

Sincerely,

Cutto E. Sils Curtis E. Jilg

Corresponding Secretary

Tau Beta Gamma

c/o Industrial Engineering Department

Kansas State University

Manhattan, Kansas 66502

December 17, 1970

Dr. Frank A. Tillman, Head Department of Industrial Engineering Kansas State University Manhattan, Kansas 66502

Dear Dr. Tillman:

Thank you for your December 14 letter and copies of the Constitution and Bylaws of Tau Beta Gamma. I presume that your local society has now been formed officially, and properly recognized by the authorities of your institution, and that it can look toward giving us a formal request for a chapter of Tau Beta Pi by December 31, 1972.

In the meantime, I hope that someone in Tau Beta Gamma will keep me posted from time to time on progress and activities of the local group. We are interested and want to keep in touch.

I have reviewed the Constitution and Bylaws of Tau Beta Gamma and I find only one significant point on which to comment. It concerns your Constitution Article IV, on Membership, Section 2(a). The second sentence of that sub-section is not quite in agreement with Tau Beta Pi's numerical limitation on the number of first-term juniors who may be elected to membership in a chapter. Please see our Constitution Article VIII, Section 2(f), near the top of page 12 of the enclosed booklet. The 25% limitation is intended to be a fraction of the then current total student membership of the chapter, not a fraction of the total number of first-term juniors who may be in the top eighth of their class. I suggest that your provision be reworded to agree with the Tau Beta Pi provision.

A further suggestion, although not a requirement of petitioning societies, is that the alumnus members (including faculty) of the Advisory Board (or Council) of a chapter serve four-year terms on a staggered basis. The purpose of this policy in Tau Beta Pi is to provide continuity within the Advisory Board, particularly in the face of major membership turnover annually within the student group. Tau Beta Gamma's Constitution Article V, Section 7, sets up your Advisory Council in a little different fashion, as regards the alumnus members of the Council. Perhaps it is your intention to have the the faculty member of the Advisory Council serve more than one year by re-election, thus providing the continuity that is desirable. Please see Tau Beta Pi's Constitution Article VI, Section 7, on pages 9 and 10 of the booklet.

December 17, 1970 Dr. Frank A. Tillman -2-If it is Tau Beta Gamma's intention to have two non-faculty alumnus members of its Advisory Council, I applaud that intent. An increasing number of our chapters are adding non-faculty alumni, particularly local industrial members, to their Advisory Boards, with mutually beneficial results. My final comment is much less important. In several places in your Constitution and Bylaws references made to Tau Beta Pi as a "national honorary engineering fraternity." There is no such animal. These are technical terms, sir, and in engineering we try to use technical terms accurately, don't we? Tau Beta Pi is properly called a National Engineering Honor Society. I confess that my railing about this point over the past 25 years has changed the speech habits of almost nobody! Sincerely yours, Robert H. Nagel RHN/sa Enclosure

DEC 16 1970 Tau Beta Pi

DEPARTMENT OF INDUSTRIAL ENGINEERING ENGINEERING SHOPS BUILDING TELEPHONE: AREA CODE 913 532-6721

December 14, 1970

Mr. Robert H. Nagel The Tau Beta Pi Association, Inc. P.O. Box 8840, University Station Knoxville, Tennessee 37916

Dear Mr. Nagel:

Enclosed are copies of our constitution and bylaws for the local chapter of Tau Beta Pi which we designate as Tau Beta Gamma.

Would you please review this material and indicate any changes necessary so that we may successively petition in two years for membership in the Tau Beta Pi.

Thank you for your interest.

Sincerely,

Dr. Frank A. Tillman Professor and Head

Department of Industrial Engineering

FAT:mj

Enc.

#### Constitution of Tau Beta Gamma

# Preamble:

The members of the School of Engineering at the Kansas State University, desiring to be incorporated in Tau Beta Pi, form Tau Beta Gamma for the purpose of recognizing in a fitting manner those who have distinguished themselves as students or by their eminent attainments as graduates in the field of engineering, of promoting scholastic incentive and cultural development of engineering students at Kansas State University.

# Article 1: Name

The organization shall be titled Tau Beta Gamma, the undergraduate Engineering Honor Society of the College of Engineering, Kansas State University, Manhattan, Kansas.

# Article II: Pattern

This engineering honor society shall be patterned after the national engineering honor society, Tau Beta Pi Association, Inc. in every way and as explicitly set forth in the Constitution of Tau Beta Gamma Honor Society.

# Article III: Purpose

The purpose of this organization shall be:

- 1) To give recognition to outstanding engineering students who have attained honor rating in their college courses.
- 2) To foster high scholarship among lower classmen by establishing an incentive for them to achieve honors necessary for admission to the society.
- 3) To keep close contact with alumni, with the hope of furthering the aims of the society and the school.
- 4) To become affiliated eventually with the national honorary engineering fraternity, Tau Beta Pi.
- 5) To promote the profession of engineering in the college and community.
- 6) To engage in activities for the betterment of the community.

# Article IV: Membership

Section 1: The membership of this organization shall consist of regularly enrolled undergraduates, at the Kansas State University at Manhattan, Kansas are engineering students, meeting the prescribed qualifications.

# Section 2: Eligibility Requirements

a. Students scholastically in the upper eighth of the junior engineering class in the beginning of the junior year would be eligible for election in the fall term. However, no more than three people or twenty five percent of this group may be selected (which ever is the greater). The remainder of the upper eighth will be eligible for election in the beginning of the spring term.

- b. Those senior students whose scholastic average fall within the upper fifth of the senior class would be eligible for election at the beginning of the fall or spring term of their senior year.
- c. Transfer students must have completed 25 hours of work at Kansas State in order to be eligible for membership.

Section 3: Election of members.

There will be two elections and initiations of undergraduates each year. It shall be held as soon as practicable after the data determining the scholastic ability of the candidates have been made.

Section 4: Members should be prepared to spend at a minimum of four hours per month in the service of Tau Beta Gamma.

#### Section 5:

A member in good standing is one who is not under censure by this organization and has paid his dues.

Section 6 (a): For continued and unexcused absences from regularly called meetings of this Society, negligence of assigned duties, inexcusable failure to meet any financial obligations, conviction or violation of the University Honor Code, or for other just cause, the active members or Advisory Council may make recommendations to the Executive Council to institute expulsion proceedings.

Section 6 (b): Expulsion shall be by a three-fourth's majority on a secret ballot of active members.

Section 7: Expulsion consists of the following: (1) Return of badge and certification of membership. (2) Complete severance of all connection with the Society.

Section 8: A member may appeal his case to the Advisory Board or Executive Council in light of new evidence.

# Section 9:

A member not in good standing shall forfeit all rights and privileges of his membership until such time as he is reinstated.

#### Section 10:

Membership in other socieities, fraternities, or organizations shall not disbar a candidate from election into this society.

# Section 11:

All former members of this society who have completed their undergraduate studies shall be termed alumni members.

# Article V: Government

# Section 1:

The officers of this organization shall be President, Vice President, Recording Secretary, Corresponding Secretary, Treasurer, Cataloger, and Advisory Council. These officers shall be elected by a majority vote.

#### Section 2:

Any active member in good standing would be eligible for office.

Section 3:

To be eligible for President, one must be a member of the society for at least one semester.

Section 4:

There shall be an election of the officers during the first meeting in May of each year. The offices will be held until the next election.

Section 5:

In case a vacancy occurs in the office of president, the vice president shall automatically become president, and a new vice president shall be appointed by the advisory council. Other vacancies shall be filled by appointment by the Advisory Council. All such appointments shall be subject to approval of the undergraduate membership by a majority vote.

Section 6:

Any officer may be removed by a three quarter vote of the active chapter.

Section 7:

The Advisory Council shall consist of the president, vice president, corresponding secretary, two alumni members, and a faculty advisor. The alumni members shall serve for terms of one year.

Section 8:

The Executive Council is a group at the national level of Tau Beta Pi, which assumes the leadership of the honorary.

# Article VI: Meetings.

Section 1:

Regular meetings of this organization shall be held once a month during the school year and shall be called by the president. Special meetings may be called by the advisory council or president.

Section 2:

General meetings of a social or technical character shall be held each term as warranted.

Article VII: Advisor.

There shall be a faculty advisor, who shall be a member ex-officio without a vote. He shall be a member of the Tau Beta Pi association.

# Article VIII: Finances.

Section 1:

All members of the Society may be assessed fees as required for the proper functioning of this organization provided such an assestment is authorized by the council and passed by a majority vote of the members of this organization.

Section 2: Funds are to be entrusted to the treasurer for safe keeping, subject to the semi-annual audit by the advisory council.

Section 3:

A checking account shall be established in the name of Tau Beta Gamma, with the president or treasurer signing.

# Article IX: Amendments.

Section 1:

Amendments and Bylaws to this constitution may be submitted by any active member in good standing at any regular meeting. Notices of proposed amendments shall be sent to all members prior to the next regular meeting when the amendments shall be voted on.

Section 2:

An amendment shall be passed by a 3/4 vote of the quorum, relating to voting on amendments, as defined in the bylaws.

Article X: Initiation.

Section 1: Initiation of new members shall be held as early as possible in the fall and spring semesters.

Section 2: The initiation procedure shall be as prescribed in the Bylaws of this constitution.

# BY-LAWS OF TAU BETA GAMMA

# By-Law I: Quorum

Section 1. A majority of the members of the council shall constitute a quorum at meetings of the council.

Section 2. A majority of student members shall constitute a quorum at regular meetings.

Section 3. A quorum must be present at any meeting at which a vote is taken committing the organization to any proposal. Without a quorum, meetings may be held at which members are inducted, proposals are submitted to the Society, matters of interest to the organization are discussed, or programs are formulated, but there shall be no formal voting on such matters.

Section 4. The quorum for purposes of constitutional amendments, elections, changing of initiation fees or chapter dues, passing assessments of student members, and <u>disciplinary action</u> shall consist of three quarters of the membership.

# By-Law II: Order of Business

The order of business at all meetings shall be as follows:

- 1. Roll call
- 2. Reading of minutes
- 3. Reports of officers, committees, etc.
- 4. Unfinished business
- 5. New business
- 6. Adjournment

# By-Law III: Procedure

Section 1. All undergraduate members shall have equal voting power. The alumni members shall have no vote.

Section 2. If questions concerning parliamentary procedure arise Roberts "Rules of Order Revised" shall govern in all points not specifically covered in the constitution and by-laws of this organization.

# By-Law IV: Duties of Officers

Section 1. It shall be the duty of the president to act as a responsible agent and leader of this chapter. He shall preside at all meetings, appoint all committees (subject to approval by a majority vote of the active body). He shall cast the deciding vote in case of a tie in all things except elections.

Section 2. The vice president shall act in the capacity of any officer who is not present at the meeting. He shall act as parliamentarian at all meetings. He shall be a member of all committees.

Section 3. It shall be the duty of the Recording Secretary to keep the minutes of the regular meetings completely typewritten, up to date, and in a suitable folder.

Section 4. It shall be the duty of the Corresponding Secretary to carry on such correspondence of the Society as the President or any other officer may direct.

Section 5. The Treasurer shall be in charge of all funds and bills of this Society. He shall maintain a bank account in the name of the Society.

Section 6. It shall be the duty of the Cataloger to keep an up-to-date record of all active and alumnus members, including full name, home address, and the college address.

Section 7. The advisory council shall formulate any necessary policies, such as the preparation of a budget, for presentation to the membership of this Society.

Section 8. The Advisory Council shall act as an advisory and judicial committee to determine the advisability of any action taken or proposed by the Society, brought before it by the petition of a minority of the Society, referred to it by a vote of the same, or considered on its own initiative. All changes in the Bylaws must be submitted to, and approved by, the Advisory Council before going into effect. By a majority vote, the Advisory Council may forbit any such action or change, subject to an appeal to the Executive Council.

# Bylaw V: Committees

Section 1 (a) The Society shall have standing committees on membershipinitiation, activities, and such other committees as the President shall desire to establish.

Section 1 (b) The President shall provide written lists of specific duties and responsibilities to the committee chairmen.

Section 2 (a) The committee chairmen shall be appointed by the President and subject to the approval of the chapter.

Section 2 (b) The committee members shall then be appointed by the chairmen and the President.

By-Law VI. The initiation will be set up by the membership committee.

Mr. Michael F. Gard 331 North Seventeenth Manhattan, Kansas 66502

Dear Mr. Gard:

Thank you for your letter of August 6, requesting information about the establishment of new Tau Beta Pi chapters. Secretary Nagel and I are delighted to hear that engineering students and faculty at Kansas State are interested in Tau Beta Pi.

Our last correspondence with someone at Kansas State was in April 1968. At that time, then Assistant Dean Kenneth K. Gowdy inquired about the possibility of using the Steel Ring Society to meet Tau Beta Pi's recommendation that a local honor society be in existence for two years before the establishment of a chapter. Several items in the Constitution of the Steel Ring Society did not follow the pattern of honor societies. It was recommended to Dean Gowdy that the society change its Constitution to make it a true local honor society in preparation for a peaktion to Tau Beta Pi. But we haven't heard from him since:

I am enclosing a copy of the Constitution and Bylaws of Tau Beta Pi, and I refer you specifically to our requirements for the establishment of collegiate chapters. These are stated in Bylaw IV, on pages 24 and 25 of the booklet. Our procedure for requesting a chapter of Tau Beta Pi is stated in Constitution Article VI, on pages 8 and 9 of the booklet. And, our membership eligibility provisions, which are vital in an honor society, are stated in considerable detail in Constitution Article VIII, starting on page 10 of the booklet.

I also enclose copies of recent successful petitions which you might consider as models for your own. I would specifically call your attention to the Constitution and Bylaws of the local societies which presented these petitions, which documents are reprinted in their booklets. A copy of our Tau Beta Pi brochure and a booklet titled "Information About Tau Beta Pi" are enclosed also.

Mr. Michael F. Gard August 11, 1970 It is appropriate for you to be in contact with the Missouri Alpha chapter at the University of Missouri, Columbia. I myself am an alumnus of that institution and chapter. And we are delighted to hear that Dr. Frank A. Tillman, Missouri Alpha '60, has consented to act as your advisor. In fact, Dr. Tillman might serve as an advisor to your local honor society and help you pattern it on a Tau Beta Pi chapter too! Missouri Alpha is correct in informing you that a petition must be received by the Executive Council of Tau Beta Pi by January 1 of the year in which the Convention might act on it. Petitions received last winter will be acted upon by our 1970 Convention in Columbus, Ohio this October. The 1971 Convention will be held here in Knoxville, Tennessee. Secretary Nagel and I would like to hear more about your local honor society and the preparations you have made for the establishment of a Tau Beta Pi chapter. We would be happy to answer your questions and give you specific advice about the organization of your local I am sure that you will have additional questions about Tau Beta Pi and about the operation of your local group. Please don't hesitate to present those questions to me. Sincerely yours, Ralph E. Warmack Assistant Secretary-Treasurer REW/ci Dr. Frank A. Tillman cc:

Michael F. Gard
331 North Seventeenth
Manhattan, Kansas
66502
August 6, 1970

Executive Council
Tau Beta Pi Association
University of Tennessee
Knoxville, Tennessee

# Gentlemen:

During the last several months there has been a good deal of interest shown by various students and faculty members at Kansas State University regarding the formation of a chapter of Tau Beta Pi here. At their request, I am writing to you in hopes of obtaining all the necessary information and forms relating to the establishment of a Tau Beta Pi chapter.

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We have been in contact with the Missouri Alpha chapter at Columbia, Missouri, and they have agreed to be the sponsoring chapter. One of their alumni, Dr. Frank Tillman, has consented to act as the KSU chapter advisor if a chapter is established at K State. If for any reason you wish to communicate with Dr. Tillman, he can be reached at the following address:

Dr. Frank, Tillman Mo. A 60
Department of Industrial Engineering
College of Engineering
Kansas State University
Manhattan, Kansas 66502

It would be greatly appreciated if you could send me the required information as soon as possible, as the Missouri chapter has informed us that you must have our petition by January 1 of 1971 in order to act on it that year.

Thank you in advance,

Michael F. Gard 331 North Seventeenth Manhattan, Kansas 66502 April 17, 1968

Dr. Kenneth K. Gowdy Assistant Dean College of Engineering Kansas State University Manhattan, Kansas 66502

Dear Dean Gowdy:

Thank you for your letter of April 12 and these materials on the Steel Ring Society and Kansas State University.

I have read the constitution of the Steel Ring Society, and I find that it really does not follow the pattern of honor societies. Major surgery would have to be performed on this constitution to make of the Steel Ring Society a true local honor society.

Taking Constitution Article IV on the eligibility and election of active members, I might comment as follows:

On Section 1 — An honor society would make students eligible for election to membership in both the first and second semesters of their junior year and of their senior year. A student thus has four opportunities for membership election.

On Section 2 — I applaud Steel Ring's required qualifications of "leadership, scholarship, social compatibility, and professional ability," which fit well into the requirement which Tau Beta Pi calls "exemplary character." But I would question whether a 2.0 grade average is truly "scholarship." In an engineering honor society the scholastic requirement would have to be at least equal to the standards set by the Association of College Honor Societies, that is, the top eighth of the junior engineering class and the top fifth of the senior engineering class.

On Section 3 -- Honor societies hold elections twice each academic year, in the fall and in the spring semesters (or in the fall and in the winter quarters).

On Section 4 -- The total number of eligible members of an honor society should never be limited to a specific figure.

And in an organization patterned after Tau Beta Pi, there could be no requirement that at least one student be elected from each department; a particular department in a particular year might have none of its junior or senior students in the top eighth or the top fifth of their respective classes. Neither would an honor society place an upper limit on the number of members from each department, again in the sense of the top eighth or fifth of the total engineering class.

On Section 5 -- The honor society's scholastic eligibility list would be determined by the same means used by Steel Ring, of course.

On Section 6 — I understand the philosophy behind this requirement and Tau Beta Pi imposes a similar limitation on time before graduation for election and initiation. But our limitation is much less restrictive than Steel Ring's; Tau Beta Pi says that a last-term senior can not be elected less than 10 weeks before his graduation nor initiated less that four weeks before his graduation.

On Section 7 — Nomination of undergraduate candidates in an honor society is not by action of a faculty member. Rather, nomination for membership is automatic in accord with the scholastic standing of each candidate. Whether such candidates are actually elected to membership is entirely in the hands of the student members of the local chapter, in accord with their measurement of each candidate's worthy character.

In looking down the list of the current members of Steel Ring, I would guess that three or four of them stand below the top fifth of their senior class. If engineering grades run about the same at K.S.U. as they do at other major institutions, the top fifth of the class usually cuts off at about a 2.9 cumulative average. This raises the point which may prove to be of diplomatic embarrassment later. If Steel Ring were to be the vehicle on which a Tau Beta Pi chapter were brought to K.S.U., we would not be able to say that all former Steel Ring members were automatically eligible for election to Tau Beta Pi. Only those whose records at the time of graduation placed them in the top fifth of their graduating class could be offered Tau Beta Pi membership. In addition, as always, men who graduated more than 10 years ago and have since made eminent reputations in engineering may be elected to membership by any Tau Beta Pi chapter without regard to their undergraduate scholarship. We call these men eminent engineers.

I enclose a copy of the Constitution and Bylaws of Tau Beta Pi, and I refer you specifically to our requirements for

the establishment of undergraduate chapters. These are stated in Bylaw IV, on pages 24 and 25 of the booklet. Our procedure for requesting a chapter of Tau Beta Pi is stated in Constitution Article VI, on pages 8 and 9 of the booklet. Our membership eligibility provisions, which are vital in an honor society, are stated in considerable detail in Constitution Article VIII, on page 10 of the booklet.

I also enclose copies of recent successful petitions which you might consider as models for your own. I would especially call your attention now to the constitutions and bylaws of the local societies which presented these petitions, which documents are reprinted in their booklets.

There is, of course, no question whatsoever about the qualifications of Kansas State University or of your College of Engineering with respect to the establishment of a Tau Beta Pi chapter. There might be some question about the desirability of considering architectural students for membership in Tau Beta Pi, although this is done by several of our existing chapters now. Architectural engineering, yes; pure architecture, only maybe. Tau Beta Pi's curriculum eligibility provisions appear in Constitution Article VIII, Section 2 (a), (b), (c), (d), and (e), on page 11 of the booklet.

I should hope that you may be successful in revising the Steel Ring Society's constitution this spring, so that the organization might have the better part of next fall's semester to work under the revised provisions before its preliminary petition might be presented to us by December 31, 1968.

I am sure you will have questions about Tau Beta Pi and about the organization and operation of your local group. Please don't hesitate to present those questions to me. I'll do my best to answer them for you on behalf of Tau Beta Pi.

Sincerely yours,

Robert H. Nagel

# Kansas State University

Manhattan, Kansas 66502



College of Engineering Seaton Hall

April 12, 1968

Robert H. Nagel The Tau Beta Pi Association University of Tennessee Knoxville, Tennessee 37916

Dear Mr. Nagel:

As requested enclosed is a copy of the Constitution and By-Laws of the Steel Ring Society, a copy of the K.S.U. catalog, and a list of the present student members of Steel Ring.

We are pleased by the favorable expression of interest on the part of the Executive Council of Tau Beta Pi. After the necessary changes are made in the Steel Ring Constitution we will begin preparation of the information needed for a preliminary petition.

Sincerely yours,

Kenneth K. Gowdy

Assistant Dean

KKG: aat Enc.

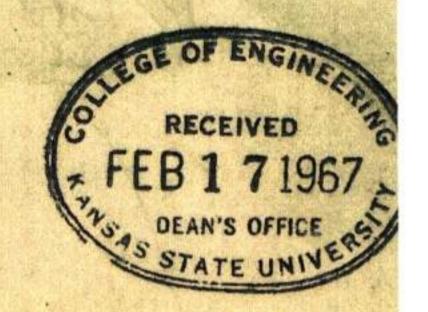
# Current Members of Steel Ring

Robert L. Fox - Civil Eng.	2.934	7
Charles M. Zimmerman - Civil Eng.	2.888	8
James D. Heath - Industrial Eng.	2.528	13
Gary G. Draper - Chemical Eng.	3.095	6
John M. Flannery - Chemical Eng.	3.438	3
Robert F. Pauly - Nuclear Eng.	2.653	11
Thomas K. Rogge - Mechanical Eng.	3.393	4
Gregory P. Hanson - Mechanical Eng.	2.579	12
Robert L. VanAllen - Electrical Eng.	3.492	2
Dallas L. Kibbe - Electrical Eng.	3.265	500
Glenn P. Alpert - Agricultural Eng.	2.880	9
Larry R. Larsen - Civil Eng.	3.704	1
James E. Stresewski - Nuclear Eng.	2.800	10

# THE CONSTITUTION OF STEEL RING PROFESSIONAL ENGINEERING SOCIETY

Revised April 14, 1964

#### PREAMBLE



Having recognized the need for a society of senior men in the College of Engineering and the College of Architecture and Design:

to lead in political, social, and professional activities; to encourage underclass participation in activities promoting engineering and architecture; to provide for recognition of outstanding effort and accomplishment and to promote the best interests of the College of Engineering and the College of Architecture and Design;

we, the members of Steel Ring Professional Engineering Society have taken as our purpose the fulfillment of this need, and do hereby band ourselves together under the following constitution.

#### ARTICLE I

# TITLE AND INSIGNIA

- Sec. 1 The name of this society shall be "Steel Ring Professional Engineering Society."
- Sec. 2 The color of this society shall be Kelly green.
- Sec. 3 The symbol of this society shall be the key described in the ritual.
- Sec. 4 Other insignie shall be as described in the ritual.

# ARTICLE II

# OFFICERS AND FACULTY ADVISORS OF THE CHAPTER

- Sec. 1 The officers of the chapter shall consist of president, vice-president, secretary, and tressurer.
- Sec. 2 The chapter shall have two faculty advisors who are on the active faculty of the College of Engineering and/or the College of Architecture and Design. The faculty advisors are chosen on alternate years by a majority vote of the active membership to sarve a maximum of two consecutive two year terms.
- Sec. 3 Officers shall be elected by ballot in the order listed in Sec. 1 at the first meeting in May. New officers will assume their duties immediately after the election of all officers.
- Sec. 4 Standing committees shall be appointed by the president, ie. program, rush, etc.

# ARTICLE V

# HONORARY MEMBERS AND ALUMNI HEMBERS

- ser. I The chapter may, if it so desires, elect ons (1) honorary member in the spring term each year, but such action is not required.
- Soil Tomorary members must have a degree in Ingineering or Architecture and must be achieve of the active faculty at the home of the chapter.
- act. ? Alumni mumbers shall consist of former active members.

#### ARTICLE VI

# AMENDMENT TO THE CONSTITUTION

of the active voting chapter.

# ARTICLE VII

#### SOCIETY BY-LAWS

- There shall be a regular luncheon meeting of the chapter on situante weeks throughout the college year, the time and place to be decided by the chapter.
- is . I Special mustings may be called by the prosident of the charges.
- A quorum for regular business shall consist of markets of the active members of a chapter. A quorum for election of officers and election of members shall consist of three-fourths of the active members of the chapter.
- ice. 4 The initiation shall be purformed in accordance with the minute of the society.
- Set 5 Proces shall be an initiation for for each new merber not be enteed \$20,000, the exact amount to be determined by the active chargon.
- This cost is to be borne by the chapter from the assessed intriction fee.
- The 7 Special encessmence may be lavied at any negate heating by a trontable voca of the chapter.
- All lills over \$5.00 hell be approved by the chapter before being

# DUTIES OF OFFICERS

- the provident thall preside at all meetings and fulfill all duties usually perusiting to this office.
- 2 The vice-prosident shall preside in the absonce of the president.
- obspects. We shall post notices of all business meetings of the chapter. We shall post notices of all regular meetings at least four days before the date of occurrence, and shall prepare and submit reports as required.
- The treasurer shall keep an accurate account of all financial matters.

  He shall receive the dues and other funds of the chapter and shall personally discharge all disbursements.

# ARTICLE IV

# ELIGIBILITY AND ELECTION OF ACTIVE MEMBERS

- See, 1 All students who are ranked as second semaster juniors or second semester Ar O4 and envolted in one of the respective curriculums in the College of Architecture and Design shall be slightle for active membership in Steel Ring Society.
- Sec. 2 Men who are elected to active membership in this society shall possess leadership, scholarship, social competibility and professional ability, and shall have at least a 2.0 (C) grade average based on honor points.
- Sec, 3 Selection of active members shall be held annually on or about the first week in April.
- Sec. 4 Membership shall be fixed at seventeen active members with a minimum of one and a manimum of three eligible students from each department of the College of Engineering and the College of Architecture and Design, and the term of sective membership shall be one year.
- Sec. 5 All candidates shall be acholestically eligible as determined by a list obtained from the proper college authority prior to each election.
- Sec. 6 Students in Chair lest term or semester or work before graduation are not eligible for election to nembership in this society.
- Sec. 7 The active members of each separate department with the head of that department shall nominate six students of eligible standing in their department. The names of these six man from each department will be presented to the actives as a whole, and a discussion as to their qualifications will take place. Then by gentlemen's agreement the activities shall select their successors.
- Sec. 8 Meetings will be conducted according to Roberts Rules of Order.

Assistant Dean Kenneth Gowdy College of Engineering Kansas State University Manhattan, Kansas 66502

Dear Dean Gowdy:

I reported our phone conversation of March 26 to the Executive Council of Tau Bets Pi at its meeting yesterday and found that all members of the Council are most happy to have this expression of interest in Tau Bets Pi from Kansas State.

I described, as best I could, your suggestion that an existing organization on your campus, Steel Ring, be the local engineering honor society which Tau Beta Pi requires as the official petitioning group. The Council felt that our normal waiting period of two years might well be waived in the case of Kansas State University because of your complete familiarity with organizations like Tau Beta Pi and because of our knowledge of the high quality of engineering education at Kansas State. The Council agreed that it would accept for regular consideration a preliminary petition for a chapter from Steel Ring looking toward action on it by our October 1969 Convention. This means that a preliminary petition from your group should reach me in 25 copies no later than January 1, 1969.

You told me over the phone last week that you would have sent to me a copy of the Constitution and Bylaws of Steel Ring, a copy of the Kansas State University catalog (or the Engineering College portion thereof), and a list of the present student members of Steel Ring with their cumulative grades and campus activities. I'll be glad to go over these materials when they arrive and advise you of any technicalities that might be directly related to the Tau Beta Pi proposition.

I would urge you again to have the Steel Ring organization amend its present constitution and bylaws to limit its membership to the top fifth of the senior class, or higher, and to the top eighth of the junior engineering class, or higher. These are the national "scholastic floors" for Tau Beta Pi chapters, although each chapter is permitted to set its own higher standards if it chooses.

I look forward to working with you on the establishment of a Tau Beta Pi chapter at Kansas State.

Sincerely yours,

Robert H. Nagel

RHN/tr cc: Mr. H. Roy Chope

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THE TAU BETA PI ASSOCIATION
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Professor Kenneth Razak
Director
Kansas Industrial Extension Service
125 Seaton Hall
Kansas State University
Manhattan, Kansas 66502

Dear Ken:

Many thanks for your letter of February 2. No, I did not know that you had moved up to Kansas State and were now running the new Industrial Extension Service. Congratulations!

Well, I am delighted to learn that you are interested in the possibility of establishing a Tau Beta Pi chapter at Kansas State. The chief reason we have not had a chapter there over the years is that the existence of a Sigma Tau chapter has made Tau Beta Pi unnecessary, in the opinion of the Kansas State people. Now of course I could not agree that that was a good reason, but then I am to be considered a bit biased! Actually, Sigma Tau is no longer properly called an honor society, having been evicted from the Association of College Honor Societies a couple of years ago when it refused to raise its scholastic requirements for membership in line with ACHS requirements. Further, of course, Sigma Tau does not have the number of chapters and number of members to make it truly effective at the national level, particularly in reputation among engineering alumni.

Perhaps you know Mr. C. Y. Thomas of Shawnee Mission, Kansas, a very loyal and interested, and prominent, alumnus of Tau Beta Pi. Mr. Thomas has been interested in the possibility of getting a chapter of Tau Beta Pi at Kansas State, and has done some quiet and proper investigating. Late last spring he wrote me as follows:

"The new Dean of Engineering at Kansas State is a member of Tau Beta Pi, and I believe one of the men told me that they have seventeen faculty members who are likewise members. They are working on this, and several of the men, who in the past have thought that another honorary organization was not necessary, have changed their tune."

I have not heard from Mr. Thomas in this regard since last spring, but I presume he has been thinking and working on the project. If you know Mr. Thomas, I would suggest that you chat with him about it.

Kansas State University is more than fully qualified for a Tau Beta Pi chapter, as you well know. The institution meets our requirements, and then some. But I do not know of the existence on the campus of a local engineering honor society, patterned directly on Tau Beta Pi, which could be quickly converted into the Kansas Gamma chapter. But your letter indicates that there may be such an organization in existence, and I should like to know more about it, including seeing a copy of its Constitution and Bylaws so that I could check them against our technical requirements.

If such a local honor society is not presently in existence, then the first step to be taken would be to create one. Such a local group must be organizedd and operating for at least two years — not three years — before a petition for a Tau Beta Pi chapter can be considered. The purpose of this waiting period is to give all the interested local people, including the institution's administrative officials, full opportunity to observe this kind of organization in operation before becoming tommitted to national affiliation. Naturally, I should be glad to do all I could in helping to get such a local honor society established in the correct pattern for Tau Beta Pi purposes.

I can't seem to lay my hands on an extra copy of the Wichita petition which you and your group gave us some years ago. I guess I gave all my extra copies away to later potential petitioners for their use as a model. But I do have some relatively recent petition booklets available, and two of them are enclosed for you. Both have resulted in the establishment of new Tau Beta Pi chapters.

Our specific requirements and procedures for the establishment of new chapters are stated in The Meta Pi Constitution Article VI, Section 2, starting on page 8 of the Constitution and Bylaws booklet enclosed, and in Bylaw IV, starting on page 24. Essentially, a petition for a new chapter must contain the answers to the questions stated and implied in these Constitution and Bylaws provisions.

After a local engineering honor society has been in existence for at least two years, we will accept a preliminary petition for a new chapter. Such preliminary petition, in 25 copies and duplicated by inexpensive office means, should be in my hands by January 1 of the year in which final action on the petition is sought. The preliminary petition must contain all of the data called for by our Constitution and Bylaws requirements. If our Executive Council approves the preliminary petition, a one-day visit of inspection is arranged. If the report of the inspection committee is favorable, our Executive Council will ask the petitioning group to prepare its petition in final, printed form and to distribute it to all of our chapters and officers that spring. Then the petitioners must send at least one student and one faculty member to our national Convention the following October, where final action is taken. Formal installation of the new chapter is then accomplished during the following winter.

Also enclosed is a copy of the current Tau Beta Pi Information booklet and of a new little "flyer" prepared this year for distribution to engineering students who may not know about Tau Beta Pi and its purposes and operations. I could supply additional copies of any of these printed materials if you could use them.

Professor Kenneth Razak

Pebruary 7, 1967

We are much interested in the possibility of establishing a chapter at Kansas State, believe me! I firmly believe that Tau Beta Pi has something of value to offer the outstanding engineering upperclassmen of any accredited engineering school. Please let me know how I can help you further. Very best regards.

Sincerely yours,

Robert H. Nagel

### Kansas Industrial Extension Service

RECEIVED FEB 6 1967 Tau Beta Pi

Office of State Director
125 Seaton Hall
KANSAS STATE UNIVERSITY
Manhattan, Kansas 66502

February 2, 1967

Mr. Robert H. Nagel Secretary-Treasurer Tau Beta Pi University of Tennessee Knoxville, Tennessee 37916

Dear Bob:

I don't recall whether I had informed you of my move to the Kansas Industrial Extension Service with headquarters at Kansas State University. The enclosed "first edition" of our information Journal will tell you a bit more about this activity. My position of Director also carries Professorial rank in the College of Engineering at Kansas State University where I am headquartered.

Speaking as a member of Tau Beta Pi, I would like to inquire as to the possibility of securing a Chapter of Tau Bate here at Kansas State. I recall the procedure we followed at the University of Wichita which involved the conversion of an honor society, which had membership requirements similar to those of Tau Beta Pi, to the Beta Chapter of Kansas. I am now interested in seeing if a Gama Chapter could be organized.

My main inquiry concerns the possible time schedule which could be followed. Is it necessary for three years to elapse from the time that a formal application is made until eligibility for a chapter is established? Could an honor society which has been in existence for several years be converted if its entrance and membership requirements are similar to those of Tau Bate? Could you send me a tabulation of the information requirements which must be submitted in a formal application? In other words, could you once again describe the procedure which we should follow for a new chapter.

Please understand that this is not an official application on behalf of the College, but merely an inquiry from an individual

49 - 20 February 2, 1967 -2-Mr. Robert H. Nagel member of Tau Beta Pi. I would like to refresh my memory on the various requirements and will then confer with faculty, administrative officers, student groups, and other Tau Beta Pi members who would be interested in serving as sponsors. Only after this preliminary ground work had been laid would a formal inquiry, or application, be forthcoming. Needless to say, I plan to carry this forward. With very best regards. Yours truly, Henneth Razak, Director Kansas Industrial Extension Service KR:ag cc: Dean Paul Russell

May 19, 1966 Mr. C. Y. Thomas 5519 East Mission Drive 66208 Shawnee Mission, Kansas Dear Mr. Thomas: Thank you very much for your letter of May 16 and your check for \$10.00 to bring your BENT life subscription payments up to the new \$35 rate. We certainly appreciate your continued interest and support. The news about Kansas State University and its possible interest in Tau Beta Pi is very good! Tau Beta Pi should certainly have a chapter at Kansas State, and I hope that some faculty interest there has been generated as a result of your good work. I should be most happy, of course, to guide and assist the dean of engineering in every way I can, and I hope that he will write to me for information. This would give me the opportunity to jump in with all four feet and help him lay out a proper plan for securing a chapter. The situation at SMU appears to be different, from the information you have given me. In view of the apparent "lethargy" of the engineering faculty, there doesn't seem much that we can do at the present time. I might mention that our members at other Texas chapter schools, including Texas, A & M, and Rice, and Houston, and perhaps also including Texas Tech, have exhibited a somewhat negative attitude toward the stimulation of a chapter at SMU. My impression is that our people in Texas would not actually oppose the establishment of a chapter at SMU, but they seem to have little heart for encouraging it at the present time. Perhaps interestingly, there is much more support within the State for a chapter at Lamar Tech and even at Arlington State, neither of which has Tau Beta Pi yet. We certainly appreciate your continuing interest in this expansion matter. Tau Beta Pi will stick by its quality standards in any expansion situation, but where the quality and the necessary quantity is present, as we know from ECPD accreditation reports, we are anxious to get things started. Your help at Kansas State in particular is most valuable. Very best regards. Most fraternally yours, Robert H. Nagel RHN/tr

C. Y. THOMAS 5519 EAST MISSION DRIVE MAY 1 9 1966 SHAWNEE MISSION, KANSAS 66208 May 16, 1966 Mr. Robert H. Nagel The Tay Beta Pi Association University of Tennessee Knoxville, Tennessee 37916 Dear Mr. Nagel: Thank you for your letter written May 12. I attach my check in the amount of \$10.00 which will bring me up to the fullypaid status. I hope I did not infer that I have a feeling Tau Beta Pi is going broke. Not at all. I am in favor of expanding the fraternity as rapidly as possible consistent with proper standards. It is almost beyond my comprehensionwwhy SMU and Kansas State are still lagging in this area. The new Dean of Engineering at Kansas State is a member of Tau Beta Pi, and I believe one of the men told me that they have seventeen faculty members who are likewise members. They are working on this, and several of the men, who in the past have thought that another honorary organization was not necessary, have changed their tune. The Dean of Engineering at the University of Kansas and some of his staff are aware of the situation, and I think it is just a matter of time, maybe next fall, that this will become a reality. Dr. Ayres, formerly a Dean at Purdue, was made Provost at SMU a couple of years ago, and he thoroughly understands the situation. I needle him every chance I get, but just one ordinary Trustee in the institution does not seem to be getting anywhere. It appears to me that SMU will have a chapter only when Texas, Texas A&M, Rice and others make this come about. Best regards. Sincerely yours, CYT:hss

Mr. C. Y. Thomas 5519 East Mission Drive Shawnee Mission, Kansas 66208

Dear Mr. Thomas:

Thank you for your letter of May 9. No, you have not made a gift of \$10.00 to bring your BENT life subscription payments up to the new \$35 rate. The new rate only went into effect a little over two years ago, but you enrolled as a fully-paid life subscriber back in June 1957, shortly after your initiation into Tau Beta Pi.

You have been very faithful in contributing to Tau Beta Pi's Fellowship Program, and we appreciate it. If you now want to make an extra donation to the Life Subscription Fund, to help us meet rising publication costs, we shall appreciate that very much also.

Tau Beta Pi is in no financial trouble! And we don't ever want to be! That is why our Executive Council decided it would be better to start early in building up the Life Subscription Fund, before we got in a squeeze. The life subscription plan still includes as a basic feature the conservation of the full life subscription fee payment, while only the annual investment earnings on the fee are used to pay the actual costs of delivering magazines to the life subscriber. At a life subscriber's death, or as we say, when he has passed beyond the reach of the postal service, we no longer have the obligation of delivering magazines to him. But we still hold his full life subscription payment intact. It is thereupon transferred, by bookkeeping, from the Life Subscription Fund to the Fellowship Fund, where it continues in perpetuity to earn a return which thenceforth is used to help pay our annual graduate fellowship stipends. Thus are our life subscription program and our fellowship program tied together at the financial level. Ultimately, this plan will have great significance in engineering education. It is doing very well already!

Incidentally, have you had a chance to do any Tau Beta Pi investigating at Kansas State University yet? Just curious!

Very best regards.

Most fraternally yours,

Robert H. Nagel

RHN/tr

C. Y. THOMAS

5519 EAST MISSION DRIVE SHAWNEE MISSION, KANSAS 66208

May 9, 1966

Tau Beta Pi Association, Inc. University of Tennessee Knoxville, Tennessee 37916

Gentlemen:

In the lower, righthand corner of Page 29 in the April issue of THE BENT, there is reference to the increase in life subscriptions and, particularly, to the voluntary increase being made by those who got in under the old rate.

For several years, I have been contributing to the Scholarship Fund, but I, frankly, don't know if I ever sent in any additional funds as mentioned. Assuming that your records would quickly reveal whether I have paid \$25.00 or \$35.00, would you please let me know.

Sincerely yours,

CYT:hss

1800 po. 4/20/87

January 11, 1966 Mr. C. Y. Thomas 5519 East Mission Drive Shawnee Mission, Kansas 66208 Dear Mr. Thomas: Thank you for your letter of January 7. I am not a professor any longer, and I never made the doctorate. Based on my highest academic achievement, you may address me 'Master" if you choose! But "Mr. Nagel" is correct, although "Bob" is preferred! I am delighted to hear that you plan to do a little spade work at Kansas State, on behalf of the Tau Beta Pi idea. If and when you need help, I am ready to supply it. Thank you very much! Most fraternally yours, Robert H. Nagel RHN/tr

C. Y. THOMAS
5519 EAST MISSION DRIVE
SHAWNEE MISSION, KANSAS 66208

January 7, 1966

JAN 1 0 1966

Mr. Robert H. Nagel
Secretary-Treasurer and Editor
The Tau Beta Pi Association
University of Tennessee
Knoxville, Tennessee 37916

Dear Mr. Nagel:

Just a note to acknowledge your good letter written January 4. Every time I see the letter-head, I am in a quandary whether to address you as "Dr.", "Professor" or "Mr.", and the Tau Beta Pi letterhead doesn't give me any help, so if I have done it wrong, I apologize.

I have numerous friends on the faculty at Kansas State University. I have already written a note to one of them, and, just as quickly as I can hear positively, I will do a little more spade work in the principal effort.

I appreciate your very prompt reply to my letter, and you can be assured I will keep you fully advised.

Sincerely yours,

CYT:hss

Mr. C. Y. Thomas 5519 East Mission Drive Shawnee Mission, Kansas 66208

Dear Mr. Thomas:

Thank you very much for your letter of December 31. As you probably know, I have heard nothing more from anyone at Southern Methodist University with respect to a Tau Beta Pi chapter and I'm sorry too. Although my views may well be called prejudiced, I feel as you do, that the absence of a Tau Beta Pi chapter at an engineering school denies the good young graduates of a recognition which is important in both the business and the academic worlds.

But I'm sure you understand Tau Beta Pi's policy in regard to expansion. We want to place chapters in institutions which qualify, but we can not and will not do so without full local support from the president of the institution on down to the lowliest instructor and the students themselves. When the local people have the spark, Tau Bets Pi will follow up with all due consideration and action.

I am surprised, and somewhat shocked, by the statement in the Kansas Engineering Society's brochure concerning Sigma Tau. Outside of Kansas State University and a very few other important engineering schools, Sigma Tau is unknown. Tau Beta Pi, with 121 chapters and a much larger total membership, is widely known and recognized all over the country and even the world. I'm afraid that the man who wrote that piece just doesn't know the facts of engineering life.

I have checked my records and I find that the last direct correspondence contact this office had with anyone at Kansas State was in 1928! At that time Professor Herbert L. Oakes of the civil engineering department stated: "Sentiment if favor of petitioning Tau Beta Pi is not strong on the campus among the faculty members. As to the students, most of them do not know of Tau Beta Pi. Sigma Tau has been on the campus for a number of years and is firmly established." Lacking any later evidence of interest at Kansas State, Tau Beta Pi has not made any overt moves in that direction.

Perhoas you know that at one time a plan was offered to merge Tau Beta
Pi and Sigma Tau into a single society. As I understand it, that plan had
the support of the officers of Sigma Tau, but it was defeated by a Tau Beta
Pi Convention. More recently, I made a rather strong attempt to reopen negotistions between the two organizations, with the full support of Tau Beta
Pi's Executive Council. That attempt was rejected out-of-hand by the president
of Sigma Tau, and of course I dropped the matter.

Tau Beta Pi's policy with regard to Sigma Tau is now this: We shall give full, fair, and prompt consideration to any formal petition for a new chapter of Tau Beta Pi, regardless of whether Sigma Tau has a chapter on that campus or not. We require that an institution meet all of Tau Beta Pi's requirements, of course, but Kansas State does this and more -- except for support of the idea on the part of the local people.

I would refuse your wager that there are 100 members of Tau Beta Pi on the Kansas State faculty. I suspect there are even more! I have met a number of them at various meetings around the country, but can not say that I know any one of them well.

My only suggestion to you would have to be that someone connected with Kansas State should strike the spark for Tau Beta Pi and then stand back and watch my dust! Obviously, Tau Beta Pi belongs at an engineering school as large and important as Kansas State's. Tau Beta Pi is weaker to some extent for the lack of it. Do you have any ideas for getting started?

Thanks very much for your inquiry. We are interested! And a happy 1966 to you, sir!

Most fraternally yours,

Robert H. Nagel

RHN/tr

C. Y. THOMAS 5519 EAST MISSION DRIVE SHAWNEE MISSION, KANSAS 66208 December 31, 1965 Professor Robert H. Nagel School of Engineering University of Tennessee Knoxville, Tennessee 37916 Dear Professor Nagel: Some years ago, via Paul Robbins, I had some correspondence with you concerning the establishment of a chapter of Tau Beta Pi at Southern Methodist University. This still has not come to pass, and I think it is sad commentary on the University -- not on Tau Beta Pi. I attach a pamphlet from the Kansas Engineering Society, of which I have been a long-time member, and I particularly call your attention to the item circled in red. Obviously, this pamphlet was written by a Kansas State man where there is a Sigma Tau or Theta Tau chapter, not one of Tau Beta Pi. There has been a great rivalry between the University of Kansas where there is a Tau Beta Pi chapter and Kansas State, extending way back through the years, but I just can't believe that this would interfere with the establishment of a chapter at Manhattan, Kansas. I have taken the position with a number of my college friends, especially those at Southern Methodist where I am a Trustee, that the absence of a Tau Beta chapter denies an identification which is very valuable to young graduates. Would you look at your records and let me know if there is a deep, underlying cause of some sort why there is not a Tau Beta Pi chapter at Kansas State University. I would wager that there are a hundred members of Tau Beta Pi on the faculty up there because, as an engineering school, it is larger and more important than that of the University of Kansas, in my opinion. I, for one, would like to see a chapter at Manhattan. Your comment and suggestion will be appreciated. Happy New Year! CYT:hss

#### THE FUTURE

Whether or not the KES Scholarship Program is successful is now up to YOU.

If YOU believe this country is to maintain world leadership and continue to grow and prosper.

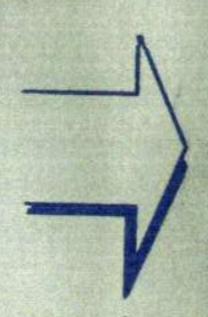
If YOU believe in the importance of providing engineering educational opportunities to deserving students.

If YOU believe it is more important to recruit a future "Sigma Tau" than a future "All American".

YOU will become a contributor to the KES Scholarship Program.

#### THE DETAILS

To contribute, fill out the following questionnaire, make your check payable to the NSPE Educational Foundation, and mail both the questionnaire and the check to the Kansas Engineering Society, 4125 Gage Center Drive, Topeka, Kansas, 66604.



JESTIONNAIRE PROGRAM ARSHIP ENGINEERING

If annual, do you wish to be billed each year?

If eligible,

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## Engineering Scholarship Program

sponsored by

INDUSTRIAL AND **ENGINEERING FIRMS** and



KANSAS ENGINEERING SOCIETY

through the

National Society of Professional Engineers Educational Foundation

#### THE BEGINNING!

Carl O. Knop, P. E., president of the Kansas Engineering Society in 1962, described in the KES publication that year an idea that has been taken up by his fellow Professional Engineers and developed into an important new scholarship program for engineering students.

Mr. Knop was concerned about the reluctance of top high school graduates to enter the engineering field. This problem has never been solved but Mr. Knop pointed out—

"Another possible solution is available however. A demonstration of its effectiveness is presented on many campuses each Saturday afternoon when a small group of hand picked "students" meet to determine the relative merits of the two colleges involved.

To say these particular students are carefully selected is indeed an understatement. Their selection and enrollment at a given college entails a concerted and coordinated effort on the part of the coaching staff plus a strong, loyal and GENEROUS alumni organization. While it is apparent that this endeavor has met with varying success at different colleges, few can deny that these efforts have upgraded most colleges' athletic representatives.

Are the problems we face in engineering so much different? While we are not competing college against college, we certainly are facing strenuous competition from other professions. It seems the academically qualified student is nearly as scarce as the 9.8 (second) halfback.

If we hope to recruit more of these top candidates into engineering, what must we do? Again a page from the athletic department's book—provide adequate scholarships! Many of our Society members are now contributing to some type of "scholarship fund" for athletics. Why not establish similar funds for engineering scholarships within KES at either the state or

local chapter level? It might be as rewarding to recruit a future "Sigma Tau" as a future "All American."

Other potential sources of support for a scholarship program are the numerous industries within the state which are also interested in engineering education. One reason many of these industries have not assisted KES in this activity before is that they have not been asked to do so.

In considering a scholarship program, two facts should be kept in mind—no currently available undergraduate scholarships go unused for lack of candidates—you cannot build a winning program with only one scholarship.

As with the Saturday Spectacular, it takes a strong, loyal and generous alumni to win."

#### THE PROGRAM

#### **DONORS**

Any industrial firm, engineering firm, individual engineer, or other persons interested in the future of the engineering profession.

#### CONTRIBUTIONS

Any size contribution will be accepted. Those less than \$250.00 will be combined and awarded in the name of KES.

An annual contribution of \$250.00 or more may bear the name of the donor.

#### RECIPIENTS

The minimum stipend for each annual scholarship shall be \$250.00.

Scholarships shall be limited to students enrolled in curriculums offered by accredited schools of engineering.

The initial recipients of any scholarship shall be limited to incoming freshmen.

Continuation of the scholarship shall be de-

pendent upon an acceptable academic record by the recipient.

#### **ADMINISTRATION**

The KES Education Committee shall administer the program in connection with their current activities in this field.

Applications for a scholarship shall be reviewed and evaluated by the appropriate local chapter before submission to the KES Education Committee for final evaluation.

The Executive Manager shall determine annually a recipient's qualification for continued receipt of a scholarship.

#### PUBLICITY

When scholarships become available, high schools throughout the state will be apprised. Suitable posters, brochures or similar data will be prepared for distribution to career counseling personnel in the high schools.

#### THE TAX STATUS

The KES will use the National Society of Professional Engineers Educational Foundation as the fiscal agent for scholarship contributions. The NSPE Foundation is a separate corporation and has received a 501(c)(3) tax classification from the Internal Revenue Service, thus permitting contributions to it to be deductible by the donor.

The NSPE Educational Foundation has established an account known as the Kansas Engineering Society Scholarship Account.

The administration of scholarships and funds, will be determined by the Kansas Engineering Society within the rules and regulations of the NSPE Educational Foundation.

All scholarships awarded by this means will retain their local society and/or individual identity.

## KANSAS STATE AGRICULTURAL COLLEGE MANHATTAN, KANSAS

DEPARTMENT OF CIVIL ENGINEERING

January 17, 1928

Professor R. C. Matthews, National Secretary of Tau Beta Pi, College of Engineering, University of Tennessee, Knoxville, Tennessee.

Dear Mr. Matthews:

It has been about two years since I have bothered you about the establishment of a new chapter of Tau Beta Pi. About that time, you remember, you came out to Oklahoma University and installed Chapter Alpha of Oklahoma. I hope that that chapter has fulfilled your expectations and that you will be inclined to consider another probable attempt on my part to petition, or rather help a student organization petition.

I am now teaching in the Civil Engineering Department of Kansas State College, and it seems to me that this school presents a very fine field for a chapter of Tau Beta Pi.

There are at present approximately 930 students enrolled in the Engineering Division, which includes nine departments; namely, Agricultural Engineering, Architectural Engineering, Architecture, Chemical Engineering, Civil Engineering, Electrical Engineering, Flour-Mill Engineering, Landscape Architecture and Mechanical Engineering. This institution has been long established and graduates a high type of student, as is evidenced by the prominent positions held by its graduates in this state and elsewhere.

Sentiment in favor of petitioning Tau
Beta Pi is not strong on the campus among the faculty members. As to the students, most of them do not know of
Tau Beta Pi. The situation is somewhat the same as that
which existed at Oklahoma University at the time the petitioning body was organized there. Sigma Tau has been on
the campus for a number of years, and is firmly established.

Dean Seaton is of the opinion that a merger of Sigma Tau and Tau Beta Pi will soon be effected and thinks that it would be lost motion to start petitioning now. He has asked me, however, to inquire about this and

says that in case a merger is not probable, that he and the heads of the departments will consider the matter of encouraging the organizing of a petitioning group here.

May I ask you to give me your frank opinion about the probability of a merger of the two organizations, and the desirability of my attempting to organize
a petitioning body on this campus.

If you wish more information concerning this school and the situation here, I shall be glad to furnish it.

With kindest personal regards, I am

Yours very truly,

Market at all the

Herbert L. Oakes

MB

Knexville, Tenn. 11/25/21.

Mr. W. T. Rolfe Wanhattan, Kansas.

Dear Mr. Rolfe:-

Answering yours of November 21. I should ask you to consult with Mr. M. R. Bowerman in connection of the proposed petition for a chapter of Tau Beta Pi. about six or seven years ago he approached me in this matter, and we met end talked it over, but he felt that the time was not right to undertake the movement. If he is not there, and you will not find any member of Tau Beta Pi to consult with let me know and I shall give you further information.

Very truly yours,

RCM/P

Secretary-Treasurer.

#### Alpha Tau Omega KANSAS DELTA THETA 1642 Fairchild Avenue

MANHATTAN, KANSAS

November 21, 1921

Mr. R. C. Mathews University of Tennessee Knoxville, Tennessee

Dear Mr. Mathews:

There is a group of men here at the Kansas State Agricultural College that is considering the petitioning of Tau Beta Pi Association and they have been advised to write to you for inforation. They are desirous of having the information as to the procedure of such an action.

These are a few of the questions that have come up and which we would like to have you answer if you feel free to do so:

To whom should such a petition be addressed?

What should such a petition contain?

When and where will the next Convention of Tau Beta Pi Association be held?

Would it be advisable for this body of men to send a representative to this Convention?

We would also like very much to have you send us any other information of such nature that would help us if you are in aposition to do so.

Yours very respectfully,

Walter T. Rolfe

Mr. C. F. Zeigler.
Manhattan, Rensus.

Doar Sir:

Your letter to Prof. Highic has been referred to me for answer. About a year and a half age I discussed the question of a chapter of Tau Beta Pi at Man-

Your letter to Prof. Highis has been referred to me for answer. About a year and a half ago I discussed the question of a chapter of Tau Beta Pi at Manhattan with Prof. M. R. Bowerman, whom you of course know. We concluded then that conditions were not right for attempting to score a charter. I suggest that you see him, and if he now thinks conditions are improved. I shall be plain to further efforts in this line as rapially as possible. It is pretty late in the year now, and the changes are action could not be secured from our chapters so as to permit playing a chapter before fall should the action be foverable. Upon presentation of this letter, I am our Prof. Boserman will be plant to consider the case with you.

Very truly yours,

Secretary-Treasurer.

ROW/zmb

Manhattan vans.
May 1. 1916.
Prof. R. C. Matthews, Roo'd MAY 3-1916
Knopville, 2ennessee. Roo'd MAY 3-1916

Dear Sir:

after having consulted several members of the engineering fourty who are members of san Rota Pi, it has been decided to drop any attempt of establishing a chapter here in the mean preture. I ask your hardon for not having assured more promptly, but I am one the varsity baseball squad and have little spare time.

Thanking you very kindly for any trouble or inconvenience which I may have caused you, I am.

Yours truly.

C. Forset Zlight, Ex

Manhattan Kansas.
April 5, 1916.

H. Harold Higbee,
Ann Arbor, Michigan.

Dear Sir;

As you are President of the honorary engineering society, Tau Beta Pi, I concluded that perhaps you would be able to give me some information concerning the probability of the location of a chapter in this school. This college, Kansas State, has an enrollment of over three thousand students, about three hundred and fifty being engineers. A number of honorary societies have chapters here, such as Alpha Psi, Alpha Zeta, Onicron Nu, Gamma Phi Delta, and Phi Kappa Phi, but the only honorary engineering society is Sigma Tau. Sigma Tau is largely controlled by a ceraain literary society, which causes men who would make good members to be set aside for perhaps an inferior who happened to belong to this literary society. Many students are not staisfied with conditions and would welcome another society, such as the one of which you are president.

Of course upper classmen only may be taken into Sigma Tau but there are a number of these who are good students that have either not been asked or who would not join them. These along with the pick of this year's Sophomore class would form a nucleus for a new organization I am practically positive that the head of the engineering

division would render us great assistance.

I would be greatly obliged to you if you will send me particulars telling how a chapter might be extablished and if there is any possibility of one being granted this spring or early fall. I wish you to use the utmost secrecy about this matter for if it were known that I had been corresponding with Tau Beta Pi, it would ruin my chances for Sigma Tau. In the event of being refused a chapter of Tau Beta Pi I would then have to resort to the next best and take Sigma Tau. My grades are among the highest in the Sophomore class.

Anxiously awaiting your reply, I remain

Matthews: A geight.

Kana State Coll. P.O.

Matthews: A would format information and have written to this man telling him that you on gail sea, would format information and have told him blank that a new chafter would be established so guilde Better some out Kanses alfhe on this? I do not think the Better some feel entirely confirmation by the time of this lettery do not you?

Knoxville, Tenn., February 23, 1915

Mr. Albert C. Bux, Manhattan, Kansas.

Dear Sir:

Yours of the 19th is at hand and answering the I will say that I discussed throughly with Mr. M. R. Bowerman, the matter of a chapter of Tau Beta Pi at Manhattan. just before the Holidays. As he is one of our members, and knows my views upon the matter, he may be considered as being the representative of our society in this connection. There are three or four other members of Tau Beta Pi at Kansas State and ho movement for a chapter could be entertained without their full sanction. I believe the conclusion reached by Mr. Bowerman and myself, after talking the matter over, was that conditions there were such that it would be well not to attempt a movement just at this time. However, conditions always change, and if there is a sentiment there in favor of a chapter of Tau Beta Pi, we shall be glad to entertuin the matter of the local members will approve.

Very truly yours,

Secretary-Treasurer.

RCM/zmb

# The Kansas State Chapter Acacia Hraternity 821 OSAGE STREET Manhattan, Kansas

Manhattan, Kansas, February, 19,1915.

Mr. R. C. Matthews,

Knoxville, Tennesse.

Dear. Sir:

Your letter of Ebbtuary 11 received and there is one question that we would like to know, which is, when was that matter taken up with Mr. Bowerman.

Trusting that you will be able to give us this information and thanking you for your favor of the nast, I am,

Resp. yours,

albut t. Buy

Mr. Albert C. Bux, 821 Osage St., Manhattan, Kansas.

Dear Sir:

Yours of February 8 is at hand this morning, and in regard to the questions you ask relative to the establishment of a chapter of Tau Beta Pi, would refer you to Mr. M. R. Bowerman, of your city, with whom this matter has previously been taken up at length.

matter, I remain,

Most fraternally yours,

Secretary-Treasurer

RCM/zmb

# The Kansas State Chapter Acacia Hraternity 821 OSAGE STREET Manhattan, Kansas

821 Osage St., Manhattan Kansas, February 8, 1915.

Mr. R.C. Matthews.

University of Tennesse.

Knoxville, Tennesse.

Dear Sir:

A number of we students here at the Kansas State agraAgricultural College of the Mechanics Arts department,
would like as much information relative to getting a chapter
of Tau Beta Pi.as you can give us at this time.

The questions we would like to know at this time are, how long must a association be organized before you will consider a petition, what prequisites must the members attain, as standing in college year etc., and well to make a long story short send us all the information you convenient -ly can.

Thanking you for anything you can conveniently give us, I beg to remain,

Sincerely yours,

Manhattan Kansas.

albert C. Bus

Knoxville, Tenn., December 7, 1914 Mr. M. R. Bowerman, Manhattan, Kansas. My dear Bowerman: If the movement for a chapter at your institution is going to come to a head, I regret that it has not done so in time for the installation to be made by myself on the trip I am to take next week. I install the Arkansas chapter on the 14th inst., and the Kansus chapter on the 17th. In anticipation of an installation at your institution some time later, will you try to be present at the Kansas ceremony? If you do get a chapter the instablation can be made by yourself or some other deputized for that purpose, with the aid of the Kansas chapter. I trust therefore you will not fail to be in Lawrence on the 17th. Kindly advise Brother C. C. Williams. University of Kansas, Lawrence, Kansas, regarding your attendance and say that I asked you to come over. Most fraternally yours, RCM/zmb Secretary-Treasurer.

Knoxville, Tenn., December 1, 1914 To the Members of the Council: I have been receiving communications from the Kansas Agricultural & Mechanical College at Manhattan, Kansas, looking toward formulating a petition for a chapter at that institution. This matter has been up once or twice before, and nothing was done because the college was not up to standard entrance requirements. Now, however, that difficulty has been removed, and 15 Carnegie units acquired. For the year 1913-14 the attendence in Engineering was as follows: 42 Seniors 61 Juniors 91 Sophomores Freshmen I do not know whether the present year shows an increase or not. I judge from a perusal of the Catalog that the college is on par with such institutions as Iowa State, at Ames, Ia., M. A. C., etc. It is rated in Class A by U. S. Dept. of Agriculture - the highest grading. Would the members of the Council wish to make advance approval of the petition which may or may not be received, so that immediately upon receipt the matter might be submitted to the chapters? I am now planning to make the trip to install the Arkansas andpkensas chapters the week of December 13-19, and should of course wish to include the Manhattan proposition if it materializes in time. If it does not, it can be installed later by the Kansas chapter. Most fraternally yours, RCM/zmb Secretary-Treasurer.

#### Kansas State Agricultural College Manhattan, Kansas

DIVISION OF MECHANIC ARTS

DEPARTMENT OF
APPLIED MECHANICS AND MACHINE DESIGN

Nov. 16, 1914

R. A. SEATON, PROFESSOR

P. J. FREEMAN,
INSTRUCTOR IN APPLIED MECHANICS

G. B. McNAIR,
INSTRUCTOR IN APPLIED MECHANICS

INSTRUCTOR IN MACHINE DESIGN

M. R. BOWERMAN,

R.C. Mathews.

Knoxville, Tenn.

Dear Brother Mathews:

It appears now as though we would make petition for a Chapter of Tau Beta Pi, within a few days. In the meantime, could you give me a better idea as to the cost of installation of the Chapter? About what will be our share of your expenses, and what initiation fees should be charged? Also what share of the expenses should be borne by present members, who are expecting to be active members of our Chapter?

In regard to the eligibility of Alumni, would a man be eligible when graduated several years ago under the old entrance requirements, if his scholarship is of proper grade?

Thanking you, I remain,

Very truly yours,

m. R. Bowerman.

Prof. M. R. Bowerman,
Manhattan, Kansas.

Dear Brother Bowerman:

Yours of the 4th is at hand and contents noted.

If you feel

Yours of the 4th is at hand and contents noted. If you feel that the conditions favor an immediate petition for a chapter at your college, there is no necessity of waiting until later. It is not required that the present men should be on the fifteen unit basis. That applies to the college itself. case you should wish to petition immediately, I may say that since are the Arkansas chapter I have been trying to arrange to make a trip out there to install it. We shall receive a petition from K. U., shortly, and if you should petition at once, it might be possible to get action upon both .Kansas movements, and for me to arrange to cover all three places in one trip, thus materially reducing the expense. am sending you under separate cover a copy of the July BENT, which gives our chapter list, and also containss interesting matter regarding the last convention. We have ruther a limited supply of these, and I should like to have this one returned unless you would care to enter a subscription to THE BENT to begin with that number.

The new Directory is not published and will probably not be before some time in January or February. I cannot now tell what the price will be.

As regards Sigma Tau, I do not believe it to be a purely honorary society. At some places where we have chapters, Sigma Tau men are frequently taken into Tau Beta Pi. I think their organization is more of a professional one, like Phi Delta Phi, or Eta Kappa Nu.

Trusting that this covers the matters mentioned in your letter, I remain,

Most fraternally yours,

RCM/zmb Encl.

Secretary-Treasurer.

R. A. SEATON, PROFESSOR

P. J. FREEMAN,
INSTRUCTOR IN APPLIED MECHANICS

G. B. McNAIR.

INSTRUCTOR IN APPLIED MECHANICS
M. R. BOWERMAN,
INSTRUCTOR IN MACHINE DESIGN

DIVISION OF MECHANIC ARTS

DEPARTMENT OF
APPLIED MECHANICS AND MACHINE DESIGN

Nov. 4, 1914

R.C. Mathews, Knoxville, Tenn.

Dear Sir:

Your letter enclosing copy of constitution of Tau Beta Pi, received. I am sending you under separate cover, a copy of our College catalogue. You will see that our graduates for last year in Engineering, numbered 42.

In regard to the entrance requirements, the requirements were raised one year ago, to the 15 Carnegie unit basis, our Freshman and Sophomore classes are now on that basis, and we would probably have to wait at least another year before asking for a Chapter. In the meantime, will you please give me a list of the Colleges and Universities which have Chapters at present? Is the Directory published yet, and what is the price per copy?

We now have a Chapter of Sigma Tau here, which was established two years ago. What is your opinion as to the advisability of our try, for another honorary fraternity?

Very truly yours,

Mr. M. R. Bowerman, Manhattan, Kansas.

Dear Brother Bowerman:

Your letter of the 27th is at hand, and contents noted. An Institution in order to be considered by us, must require fourteen Carnegie entrance units or the equivalent thereof. As I understand it, your college did not meet this requirement some time ago. Also, there should be an average of about 40 engineers or more in the graduating class, with reasonable assurance that this number will not be materially diminished. In addition to these, our unofficial requirements, you will find the official ones in the enclosed copy of the Constitution, Article VI. The Constitution has been amended, and is now in press, but Article VI has not been changed.

If you desire to petition for a chapter I shall be glad to expedite the matter as much as possible. There should be not more than twenty petitioners, all of whose full names should be signed to the petition.

The net expense for an installation would be about \$10.00 per man, plus the expenses of the installing officer, probably myself. I understand that the University of Kansas is arranging to petition for a chapter, and in case these two matters came up together, the installing officer might attend both of them on one trip, thus reducing expenses. It is customary to charge an initiation fee to all the members of about \$15.00 or more, depending upon local conditions.

If I can give you any further information, I shall be pleased to do so.

Very fraternally yours,

RCM/zmb

Secretary-Treasurer.

P. S.

The college catalog.

Please send me a copy of the latest edition of R. C. M.

Lyng made Ograf April og

#### Kansas State Agricultural College Manhattan, Kansas

DIVISION OF MECHANIC ARTS

DEPARTMENT OF

APPLIED MECHANICS AND MACHINE DESIGN

oct. 27, 1914

R. A. SEATON, PROFESSOR P. J. FREEMAN, INSTRUCTOR IN APPLIED MECHANICS

INSTRUCTOR IN APPLIED MECHANICS M. R. BOWERMAN,

G. B. McNAIR,

INSTRUCTOR IN MACHINE DESIGN

R.C. Mathews,

Knoxville, Tenn.

Dear Sir:

A few of the instructors in Engineering here have been wondering if it would be a good thing to have a Chapter of Tau Beta Pi established here. Since two years ago the entrance requirements here have been up to the standard of other schools, which have chapters, and we think it is time to start a chapter here.

Please give us your opinion concerning this, and the requirements which we would have to fulfill in order to get the Chapter.

Very truly yours,

M. R. Bowerman A of mich. '09.

DIVISION OF ENGINEERING

L. E. CONRAD, PROFESSOR F. F. FRAZIER, ASSISTANT



H. J. WATERS, PRESIDENT

E. B. MCCORMICK, DEAN

2/9/12.

Mr. R. C. Marthews,
Secretary Tau Beta Pi,
Knoxville, Tenn.

My dear Sir:

I have your letter of September 5, and wish to thank you for the same.

I can think of no reason which would lead your Executive Council to consider favorably an application for a Chapter of Tau Beta Pi at this place. The fourteen unit entrance requirement effectively blocks the plan, so far as I can see.

Respectfully,

J. E. Courad.

Knoxville, Tenn. Teb. 5, 1911.

Prof. L. E. Conrad,

Manhattan, Kas.

My dear Sir:-

Your inquiry of the first reachedmie, and I wish to say that upon examination of your catalog, a copy of which I received a few days ago, I find that only eight units are required for admission. As we have a very definite feeling that chapters should not be established where less than four-teen units are required, I fear that our chapters would not beinglined to consider favorably a retition from your institution at this time. If there are any points which might put another face upon this matter, I should be glad to have you write me concerning them. Until this is cleared up it would be profitless to discuss other details, but I will say that the method of averaging you mention, if weighted according to the value of the subject in credite, would be satisfactory.

Awaiting your further favors, I am, Cordially yours,

Secretary.

L. E. CONRAD, PROFESSOR F. F. FRAZIER, ASSISTANT



H. J. WATERS, PRESIDENT

E. B. MCCORMICK, DEAN

2/1/12.

Robert C. Matthews, B. S., University of Tennessee, Knoxville, Tenn.

Dear Sir:

During the past few months considerable interest has been aroused in this institution regarding the establishing of a Chapter of Tau Beta I am writing you at the suggestion of Dean E. B. McCormick for in-Pi. formation regarding the best method of determining eligibility in this institution. Our markings consist of five letters, E (Excellent), G (Good), P (Passed), C (Condition), and F (Failure). As a general thing I believe that the teachers consider a grade of E equivalent to a numerical grade of from 90 to 100, G from 80 to 89, P from 70 to 79, c 60 to 69, and F below 60. In your opinion would it be permissible to average grades in this case by calling all E's 95, G's 85, P's 75, C's 65 and F's 50. Of course the numerical value of an F is indeterminate, but I think we are safe in saying that students eligible to Tau Beta Pi will have very few F's on their record. If you consider that the method of determining eligibility above described would not be permissible, will you please state what, in your opinion, would be the best method of determining it.

Also, will you please state the present amount of dues for both juniors and seniors.

Do you know of any reason likely to make it difficult for this institution to obtain a charter for a Chapter of Tau Beta Pi? We have about 300 engineering students here in Civil, Electrical, and Mechanical Engineering.

Please accept my thanks in advance for your attention to this matter.

Respectfully, Courad.

PUBLIC ENGINEERING

W. S. GEARHART, STATE ENGINEER

H. B. WALKER, DRAINAGE AND IRRIGATION

A. R. LOSH, ASSISTANT ENGINEER

### Kansas State Agricultural College

H. J. WATERS, PRESIDENT

MANHATTAN. January 30, 1912

Mr. R. C. Mathews,

Sec., Executive Council, Tau Beta Pi, Ynoxville, Tenn.

Dear Sir:-

Your fever of the 26th inst. and the enclosed letter and constitution and by-laws of the Tau Beta Pireceived for which kindly accept my thanks.

Work but we are interested in having a Chapter established here and will take this matter up with the students and faculty at once and write you later.

In compliance with your request I am sending you College catalogue under separate cover.

Thanking you for your courtesy in this matter,

Very truly yours,

State Engineer.

WSG-AA

I am

Mr. W. S. Gearheart,

Manhattan, Kas.

Dear Brother:-

At the request of Bro. H. J. Kuelling of Milwaukee, I am sending you an information sheet covering the points necessary for consideration in establishing a chapter of Tau Beta Pi. I have had several similar requests lately, and accordingly made a number of carbons of this, wandh I know you will pardent my sending one of them to you.

bro. Kuelling said you and Bro. Walker seemed to be in favor of a chapter at Manhattan; and that the authorities there would like to have something done. I am somewhat of an expansionist myself, feeling that we ought to establish chapters wherever and whenever conditions warrant. If you have any doubts as to the desirability of putting a chapter in at Manhattan, please do not hesitate to say so. We have a great plenty now to get along satisfactorily, and are not seeking new ones very vigorously. If things seem right to you, I shall be glad to do whatever I am able to push matters along.

termine the men eligible, and call them together some day and explain the aims and objects of Tau Beta Pi in so far as seems advisable. If they seemed to wish to push the thing along, then the information on the enclosed sheet could be made known, and the necessary steps taken. I do not think it wise to try-to establish a chapter unless the students want it.

Hoping to hear from you at an early date, I am,

Very fraternally,

Please have a college catalog sent to me.

Secretary.

... Office of ...

Rec'd DEC 22 1911

## County Highway Commissioner



MILWAUKEE, Dec., 20, 1911. 191\_

Mr, Robert C. Matthews,

Knoxville, Tenn.

Dear Brother: - About a month ago I was in Manhattan Kansas where the Agricultural College of that state is situated. At this school there is a standard Engineering Department of about Five Hundred students and they have no Tau Beta Pi, but are very anxious to get one started.

I spent considerable with the Dean talking the matter over and also in inspecting the school and I am convinced that some steps should be taken to have a chapter established. The Dean is perfectly willing to do all he can to aid though he is not a Brother himself.

The only Brothers I could locate out there were Brother Gearhart, who is the State Highway Engineer of Kansas and located at Manhattan, and his assistant Mr. Walker. They are both willing to undertake the task of starting the Chapter and think they can get help from some of the Brothers in Kansas City.

I promised them I would get them in touch with the right officials so
I would be very much oblidged if you would write to them telling them be
necessary steps for them to take. Brother Gearhart will be glad to attend
to it.

Fraternally Yours, Kurlling os.

Knozville, Tem. Fee. 4, 1910. Mr. M. P. Bonernan. morbattan, Kas. De in Drothers-Your leaters of Dec. Erth and Jun teth are at hand, as a small half the supported title First, but was away surring the Hollings, and made since been unusually busy with sollens work. I true Linest mountains reparting your seneol, and will am elve me figur wherear a petition would be favorably received or not. We have of late rather leid to the fullouing prescriptions in the puse of new charters. At Least fourteen Carpegie entrance mults must be rejulical by the college. The sunter and junter classes must have not less than torregalkemembers each, in order than a nintamon of mene-men lion when cluse may be assured. I Trace committees can be met there, I should be glad to consider the mitter further, and to receive fuller luforestant unoil it. TICHRESIS TO THE TOP IT IN. Wor, fraternally, escretuly.

Enural levilence Feb. 1, 1910. Mr. M. H. Hrywart w. Turitiation. E-co. Dear Brether. YOUR LULES OF DOC. THEFT DISTRIBUTED FOR STATE ALLENGED BY THE PROPERTY OF TH THIT I'VE THE TOLETCH WELLS WIND WIND WINDS OF THE STATE WITH CHIEF WORLS THE REAL RESIDENCE IN THE REAL PROPERTY OF SOME OF SOME THE STREET STREET AND LABOR WILDER AND THE PROPERTY OF A P In recally also not act. The There of Late rather lele to the 了一个工具的是工程的工作,但工作,这个工程的工作,这个工程,这个工程,这个工程的一个工程的一个工程的工程的工程的工程的工程的工程的工程的工程的工程的工程的工程的 At least time the far the far abidity on transper unit to mit at the fre-THE THE POST OF TH THE THE TRUE TO BE DESCRIPTION OF THE SECOND SECTIONS OF THE OFF APPLICATION OF THE PROPERTY OF NEED TORK IN THE RESIDENCE OF THE PARTY OF THE VERY TORK OF THE PARTY. for almost to complicat the method turther, use to recipient TULLUT LIFE BLACE WINDERS L. Hury Eraternally, 想是在建立一工艺。

Mourhattan, Kas., Jan 28-10

Prof. R.C. Matthews: Knockille, Terre. Dephould like to know what proceedure would be : followed to establish a chepter of Jun Between at the college. I think the agreering course is elving word to warrant a clopte. de am træching Mochanical Engine in the and an with itelested in one and a project. Hopingt 一一一个一个一个一个一个一个一个 rogard, dan, Very true, your M. R. Bowerman alphymid: '09: K. S.a.c.

## Rec'l JAN 1 - 1910

K. S. a. C., Manhattan, Kas, Dec 27, og

R. C. Matthews See: I an Beta Ri I moxorille, i enn. Dear Sir:

Sahould like to see a chapter of your Betu Pi established at the soper way of going about to apply for one or think the institution is worthy. I am teaching we'll Eng.

Wery truly yours M. R. Bowerman alpha of Mich, '09.